Supplementary file 1 - S1

This supplementary file contains the growth responses and predicted growth/no growth interfaces for the 188 *Escherichia coli* strains. The results from the purposeful selection approach used to select the significant variables for the logistic regression is shown for each strain. The results are organized as follows:

- The first table contains the parameters estimates and the respective standard error, z value, p value, confidence interval (2.50% and 97.50% intervals), odd value and confidence interval for the odd value (2.50% and 97.50% intervals).
- The second table contains the anova analysis containing the degrees-of-freedom, the deviance, the residual degrees-of-freedom, the residual deviance and the p-values (using a chi-squared test).
- The third table contains the values for the Akaike information criterion (AIC), the likelihood ratio and the log-likelihood.
- The first figure depicts statistical plots: residual versus fitted, normal Q-Q, scale-location and residuals versus leverage.
- The second and third pictures depict the growth responses and the predicted probability lines (10, 50 and 90%) for 0 mM and 25 mM of lactic acid (LA), respectively, according to temperature and pH. For strains, which the logistic regression results did not select both pH and temperature as significant variables, the results are shown as the *p* probability of growth according to pH, i.e., *E. coli* EC16. Followed by the growth responses according to pH and temperature without the predicted probability lines.

Legend for the growth responses:

\+ no growth occurred in all the replicates

▽ growth occurred in some of the replicates the % of repetitions that grew are shown

○ growth occurred in all the replicates

Legend for the predicted probability lines:

····· 10 % growth probability

--------- 50% growth probability

——— 90% growth probability

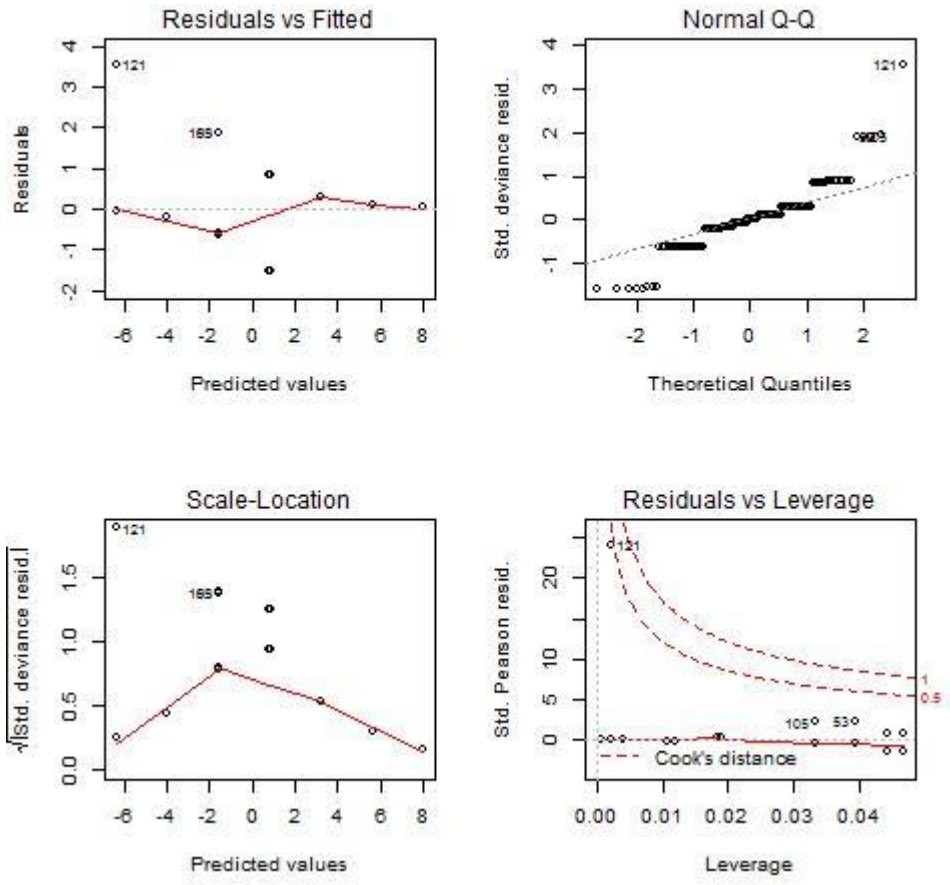
Contents

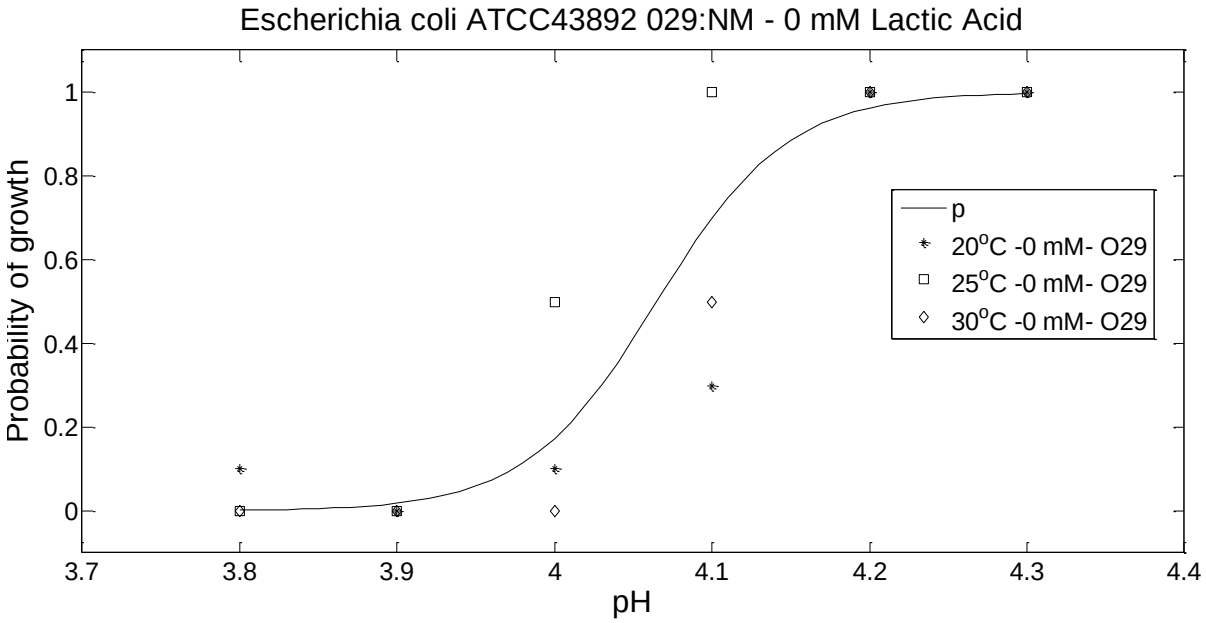
1. *E.coli* O29:NM strain ATCC43892

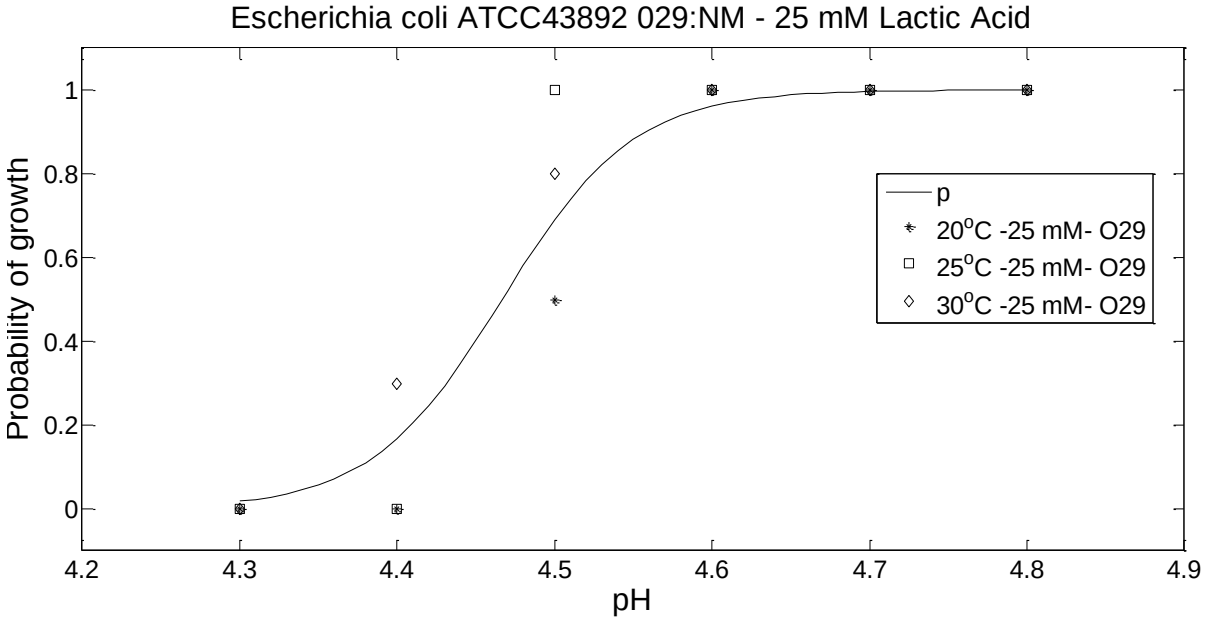
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-97.70	16.65	-5.87	0.00	-135.58	-69.58	0.00	0.00	0.00
pH	24.03	4.10	5.86	0.00	17.10	33.37	2.74E+10	2.68E+07	3.10E+14
LA	-0.39	0.07	-5.36	0.00	-0.55	-0.26	0.68	0.58	0.77

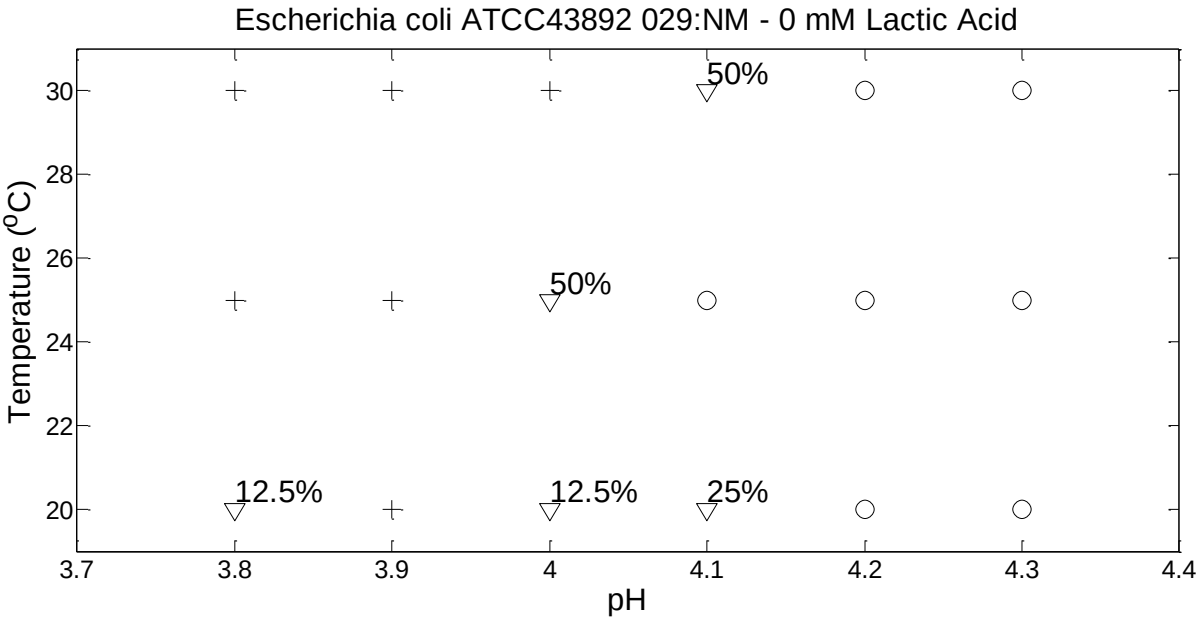
Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)	
NULL			155	216.03	
pH	1	67.69	154	148.34	0.00
LA	1	78.67	153	69.67	0.00

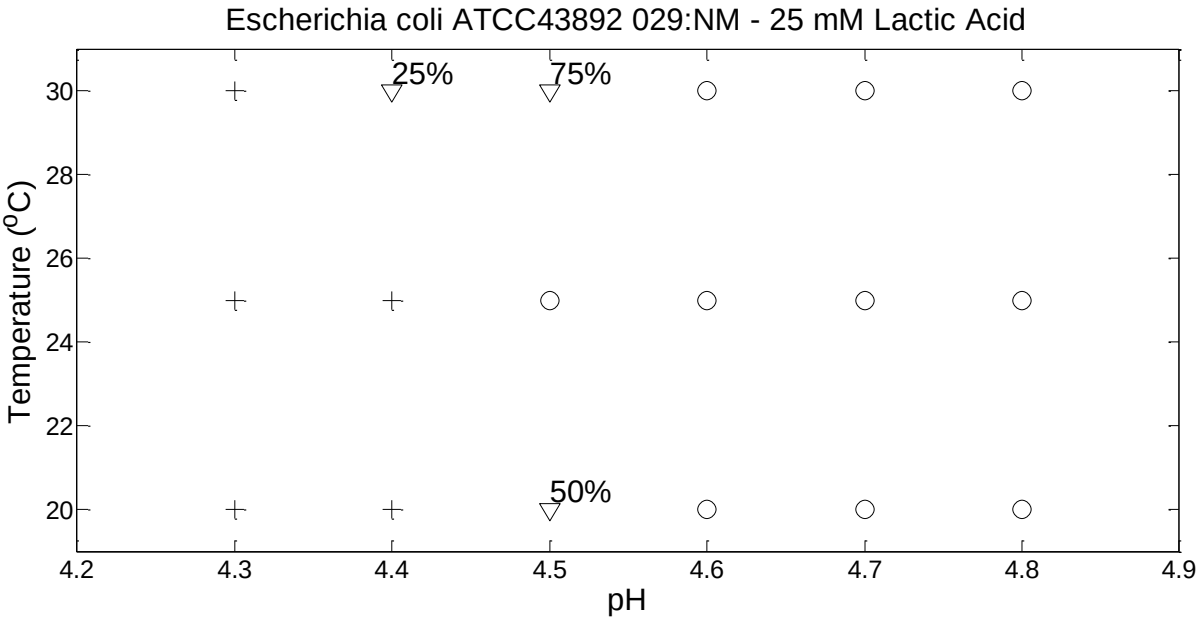
AIC	75.67
Likelihood Ratio	1.66E-32
Log-Likelihood	-34.84




Escherichia coli ATCC43892 029:NM - 0 mM Lactic Acid
Probability of growth
pH
p
20°C -0 mM- O29
25°C -0 mM- O29
30°C -0 mM- O29
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ATCC43892 029:NM - 25 mM Lactic Acid
Probability of growth
pH
p
20°C -25 mM- O29
25°C -25 mM- O29
30°C -25 mM- O29
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli ATCC43892 029:NM - 0 mM Lactic Acid
50%
50%
12.5%
12.5%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

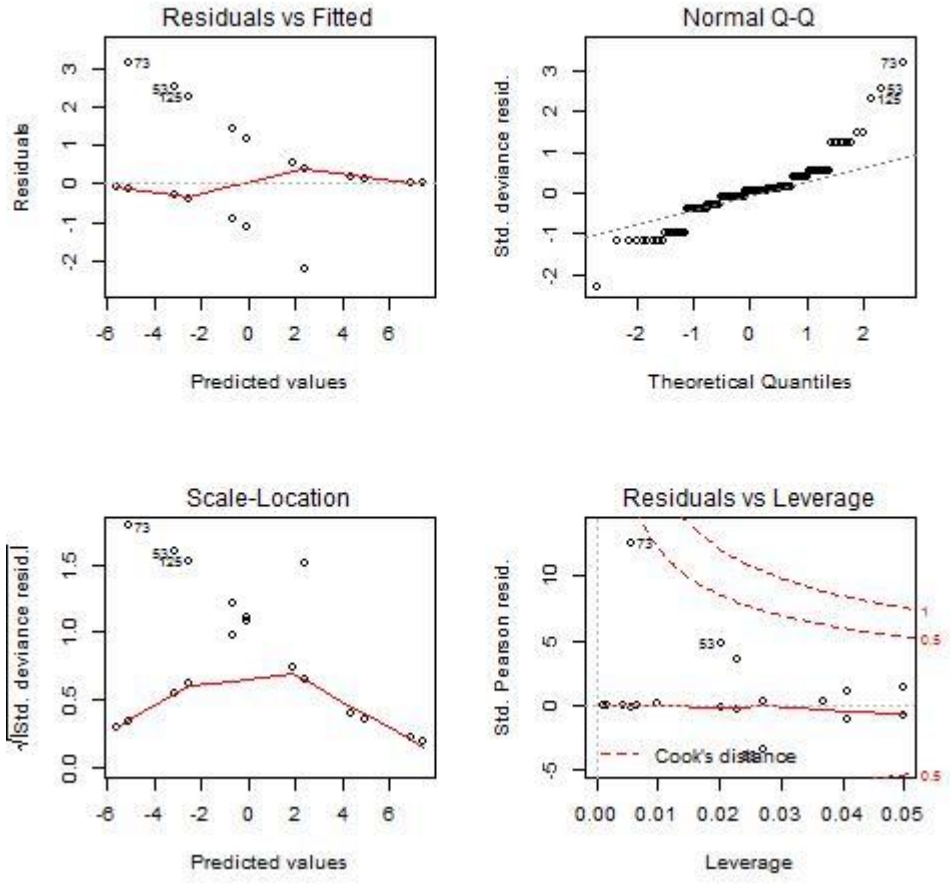

Escherichia coli ATCC43892 029:NM - 25 mM Lactic Acid
25%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

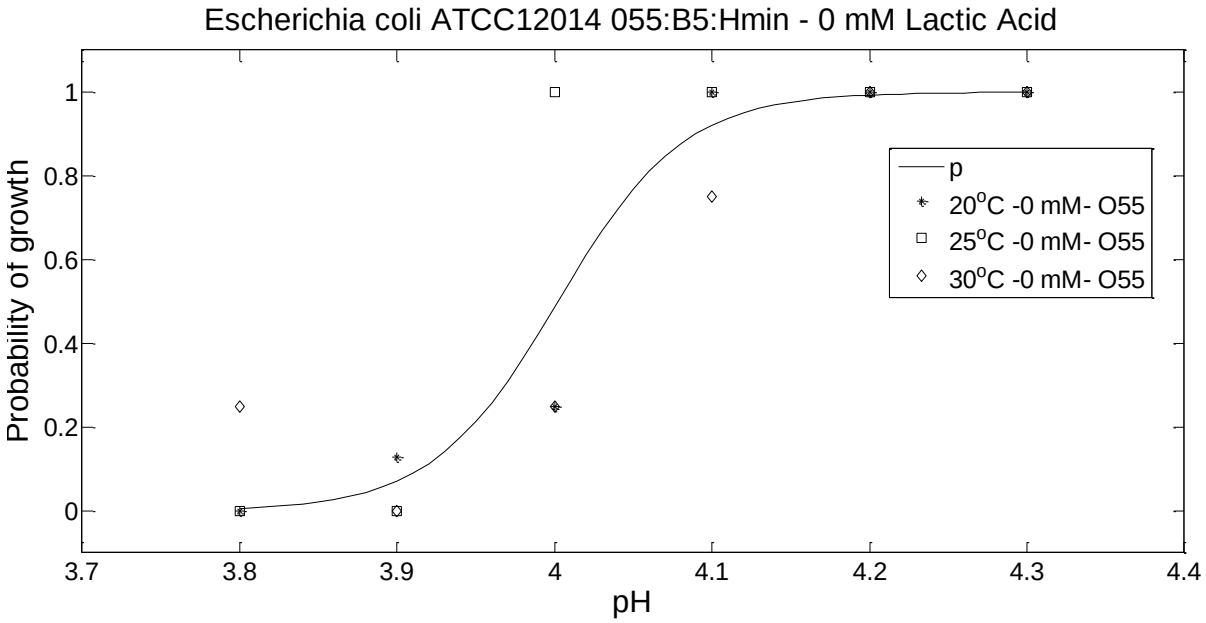
2. *E.coli* O55:B5:Hmin strain ATCC12014

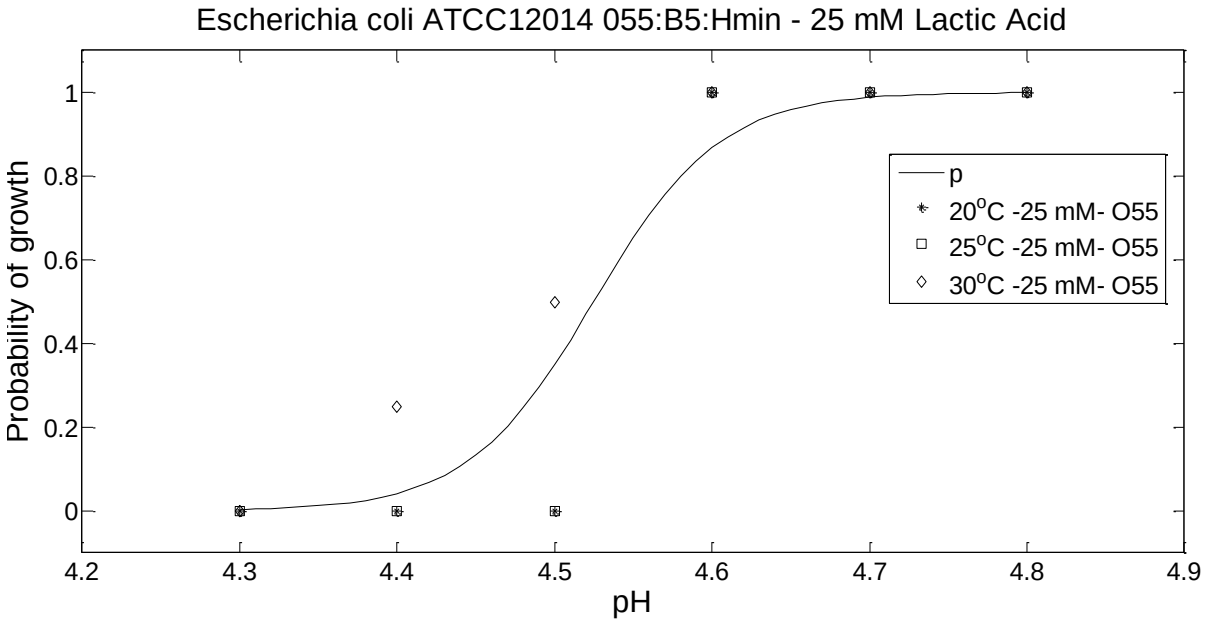
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-100.22	17.55	-5.71	0.00	-141.15	-70.97	0.00	0.00	0.00
pH	25.04	4.39	5.70	0.00	17.73	35.28	7.50E+10	4.99E+07	2.10E+15
LA	-0.52	0.10	-5.47	0.00	-0.74	-0.36	0.59	0.48	0.70

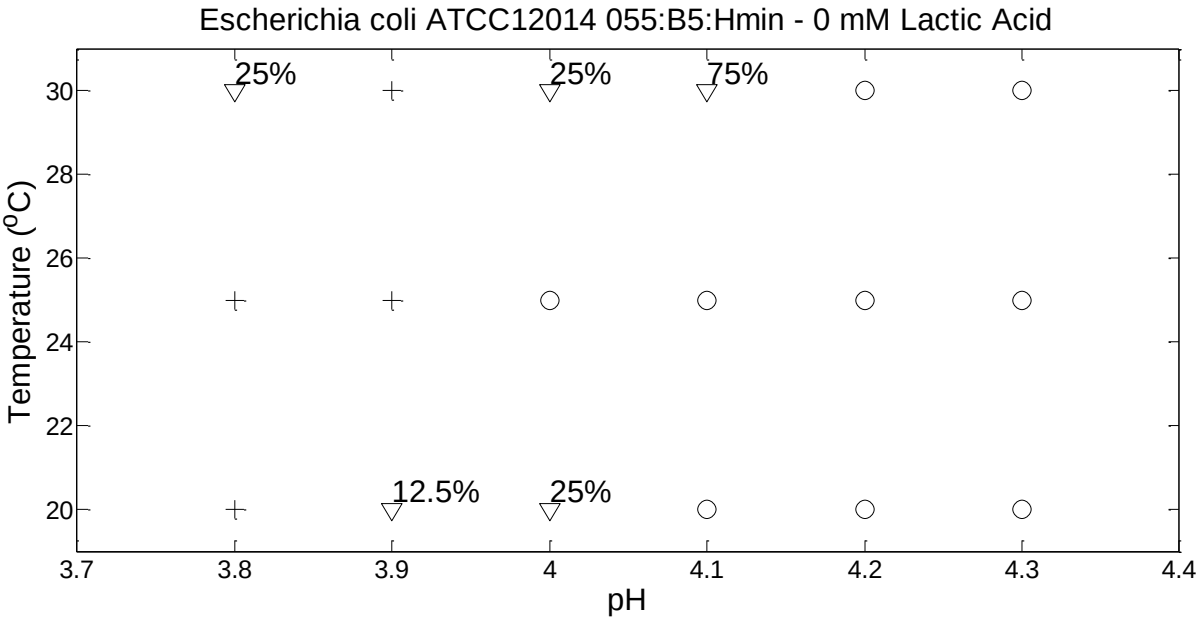
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.62	
pH	1	35.19	154	180.43	0.00
LA	1	109.55	153	70.88	0.00

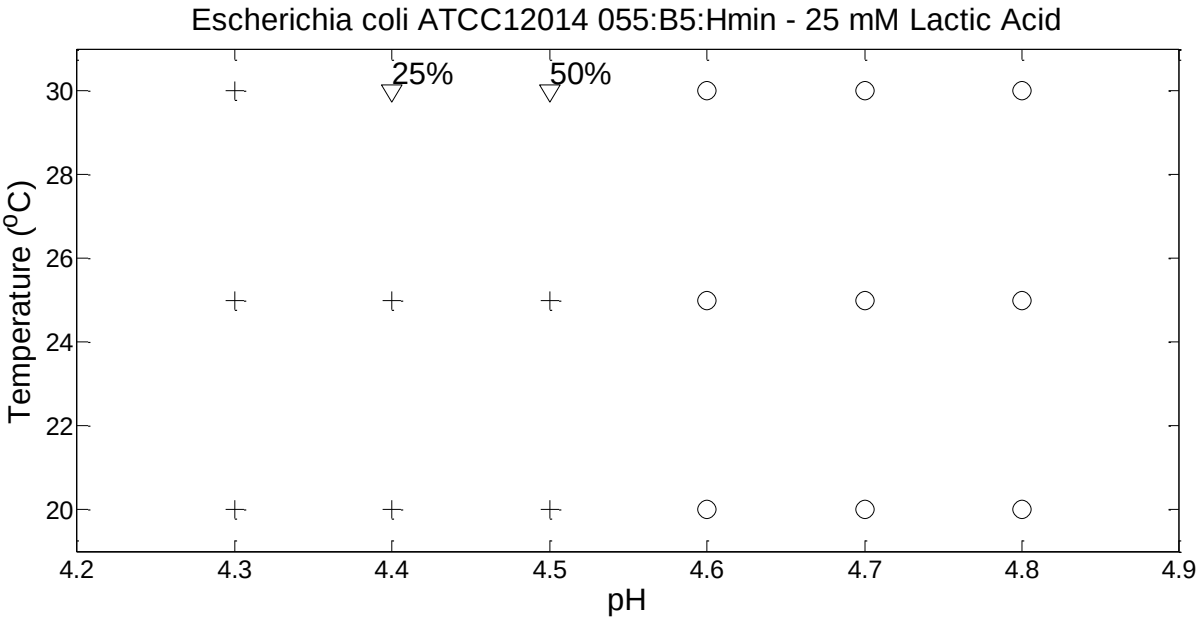
AIC	76.88
Likelihood Ratio	3.71E-32
Log-Likelihood	-35.44




Escherichia coli ATCC12014 055:B5:Hmin - 0 mM Lactic Acid
Probability of growth
pH
p
20°C -0 mM- O55
25°C -0 mM- O55
30°C -0 mM- O55
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ATCC12014 055:B5:Hmin - 25 mM Lactic Acid
Probability of growth
pH
p
20°C -25 mM- O55
25°C -25 mM- O55
30°C -25 mM- O55
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli ATCC12014 055:B5:Hmin - 0 mM Lactic Acid
25%
25%
75%
12.5%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

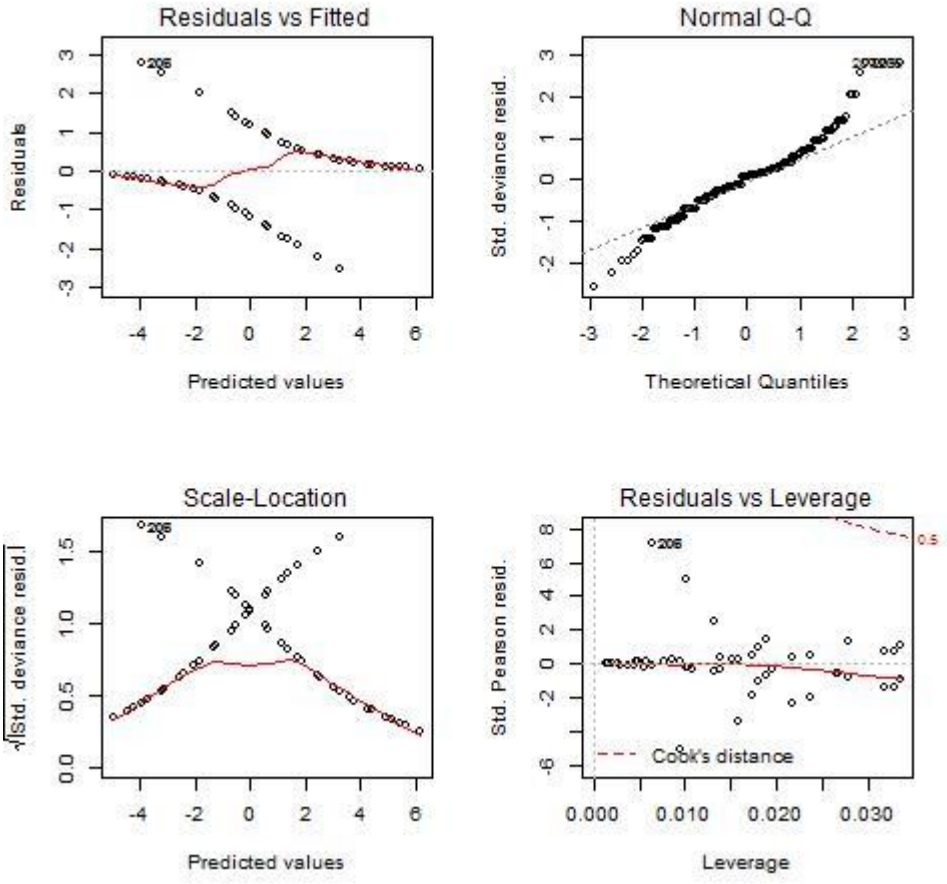

Escherichia coli ATCC12014 055:B5:Hmin - 25 mM Lactic Acid
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

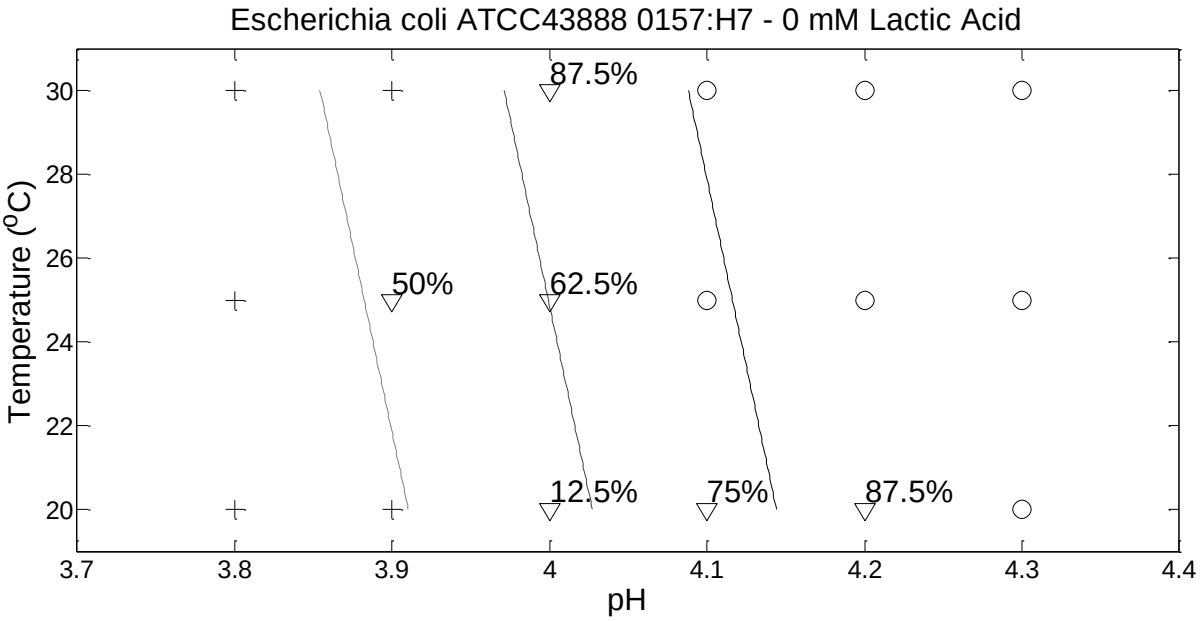
3. *E.coli* O157:H7 strain ATCC43888

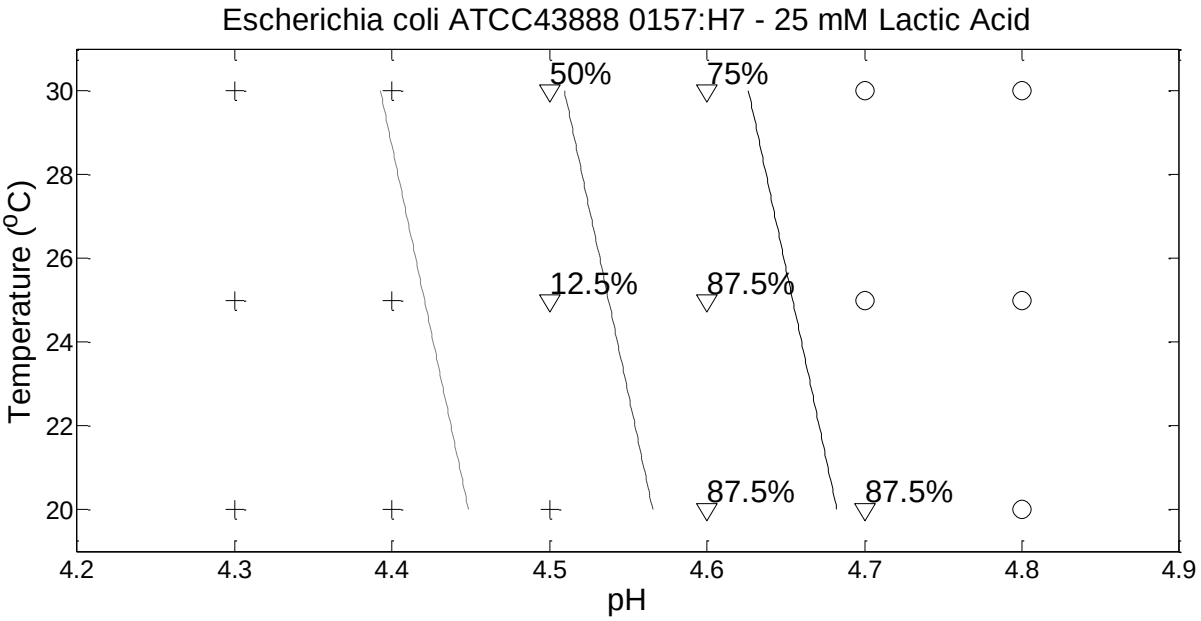
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-77.79	8.83	-8.81	0.00	-96.84	-62.01	0.00	0.00	0.00
pH	18.79	2.13	8.83	0.00	14.99	23.39	1.45E+08	3.24E+06	1.44E+10
Temp	0.11	0.05	2.19	0.03	0.01	0.20	1.11	1.01	1.22
LA	-0.40	0.05	-8.31	0.00	-0.51	-0.32	0.67	0.60	0.73

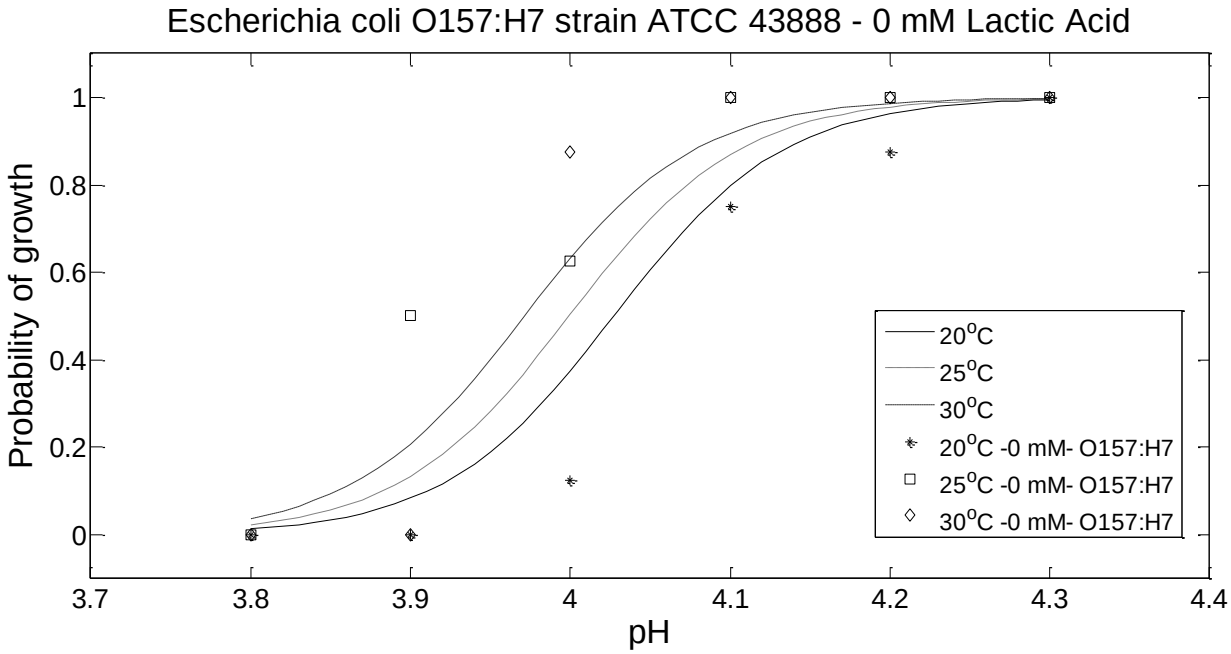
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			299	414.27	
pH	1	51.34	298	362.93	0.00
Temp	1	2.55	297	360.39	0.11
LA	1	187.31	296	173.08	0.00

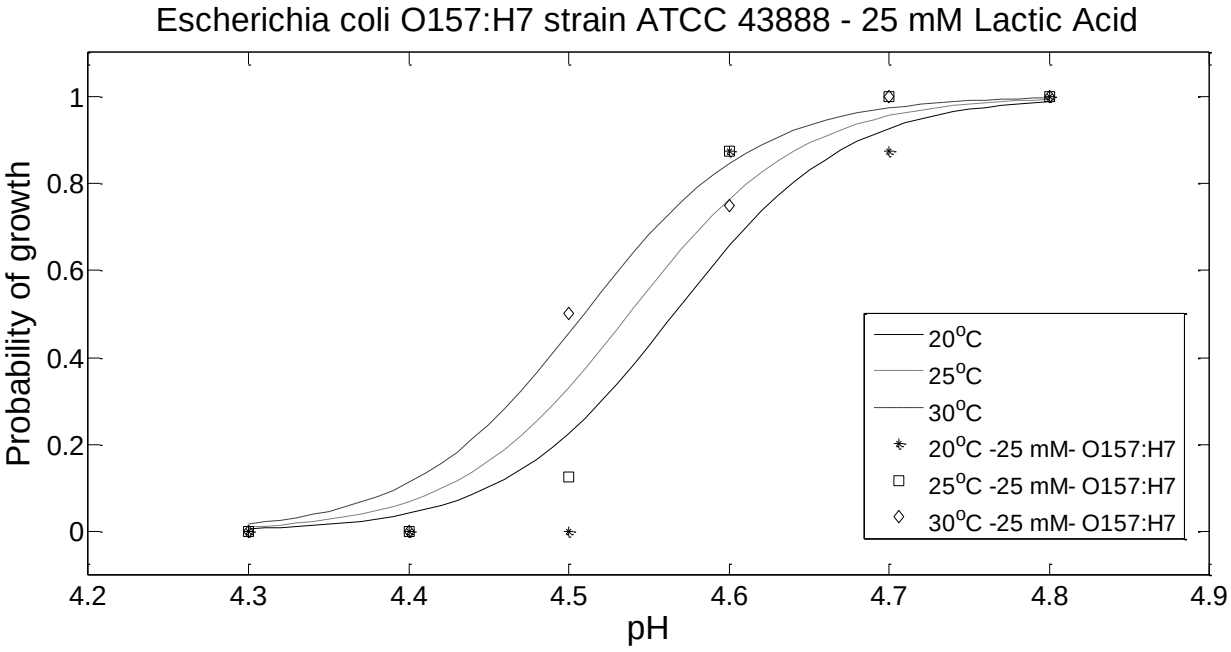
AIC	181.08
Likelihood Ratio	5.25E-52
Log-Likelihood	-86.54




Escherichia coli ATCC43888 0157:H7 - 0 mM Lactic Acid
87.5%
50%
62.5%
12.5%
75%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ATCC43888 0157:H7 - 25 mM Lactic Acid
50%
75%
12.5%
87.5%
87.5%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli O157:H7 strain ATCC 43888 - 0 mM Lactic Acid
Probability of growth
pH
20°C
25°C
30°C
20°C -0 mM- O157:H7
25°C -0 mM- O157:H7
30°C -0 mM- O157:H7

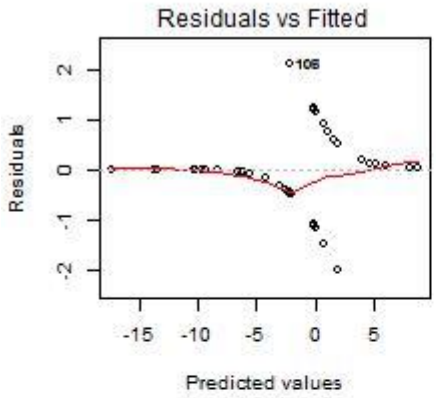

Escherichia coli O157:H7 strain ATCC 43888 - 25 mM Lactic Acid
Probability of growth
pH
20°C
25°C
30°C
20°C -25 mM- O157:H7
25°C -25 mM- O157:H7
30°C -25 mM- O157:H7

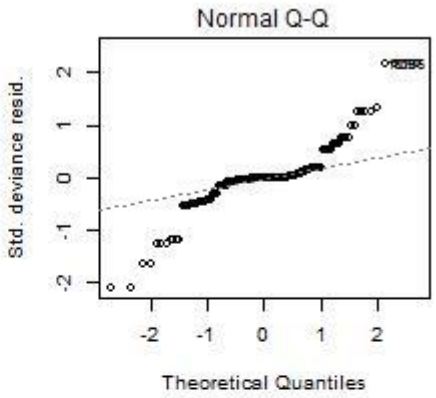
4. *E.coli* MG1655

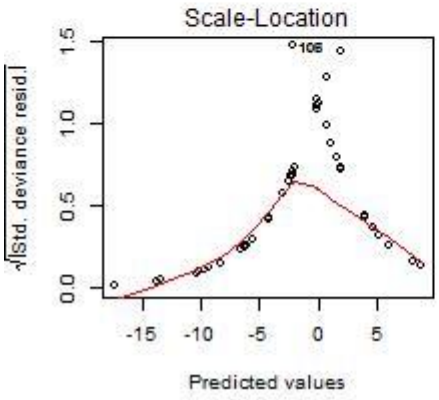
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
Intercept	-106.29	23.46	-4.53	0.00	-161.19	-67.48	0.00	0.00	0.00
pH	20.91	4.81	4.35	0.00	12.88	32.06	1.21E+09	3.92E+05	8.36E+13
Temp	0.82	0.18	4.59	0.00	0.52	1.24	2.27	1.69	3.45
LA	-3.36	1.22	-2.75	0.01	-6.16	-1.23	0.03	0.00	0.29
pH:LA	0.62	0.26	2.38	0.02	0.16	1.21	1.86	1.17	3.34

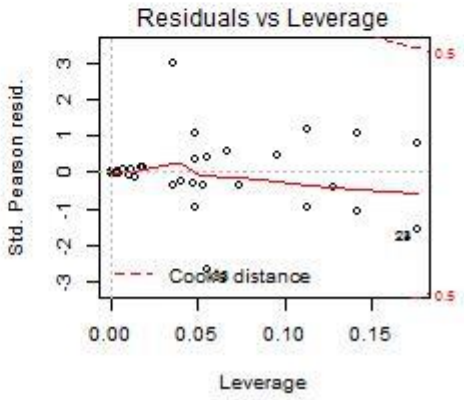
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	198.59	
pH	1	14.61	154	183.98	0.00
Temp	1	33.83	153	150.16	0.00
LA	1	88.45	152	61.71	0.00
pH:LA	1	7.33	151	54.38	0.01

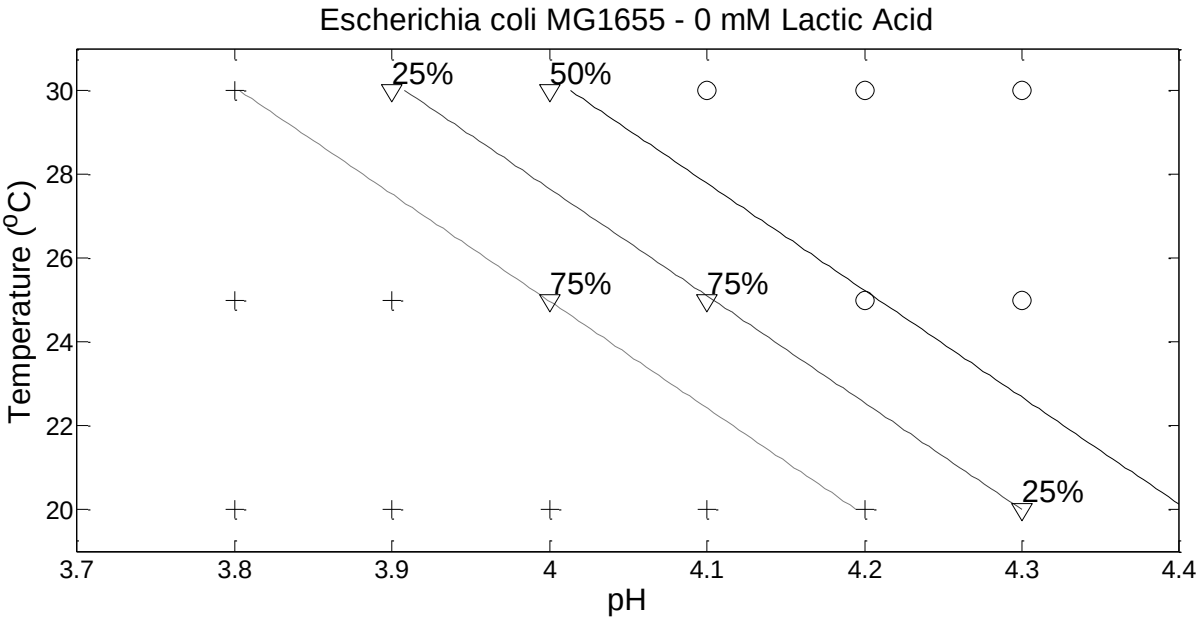
AIC	64.38
Likelihood Ratio	3.54E-30
Log-Likelihood	-27.19

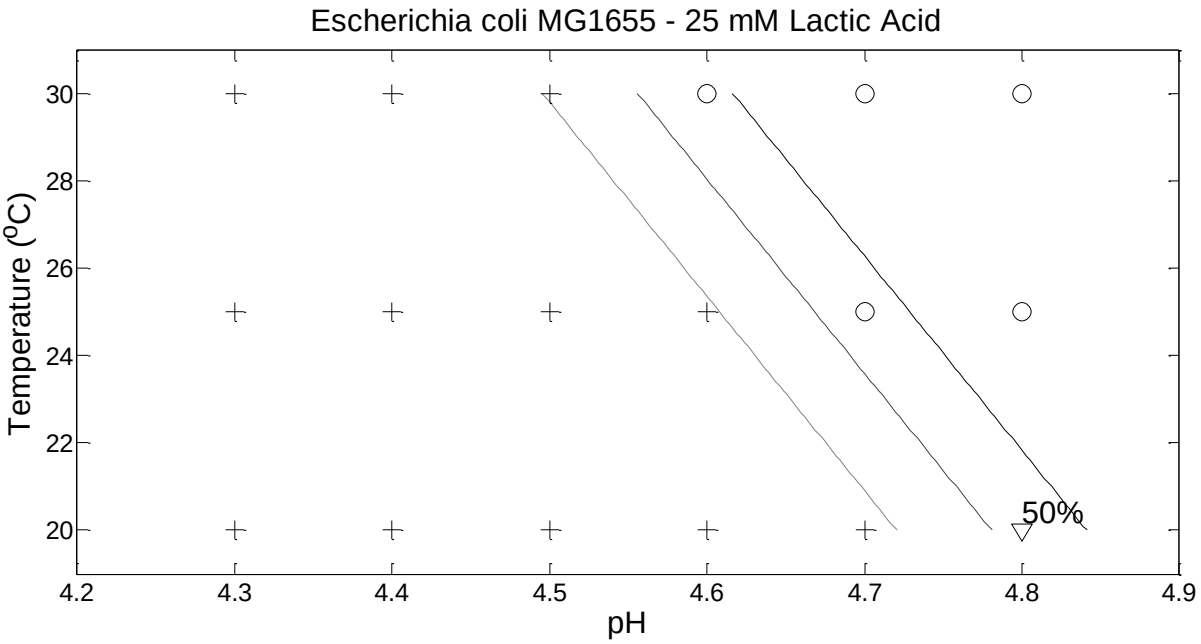


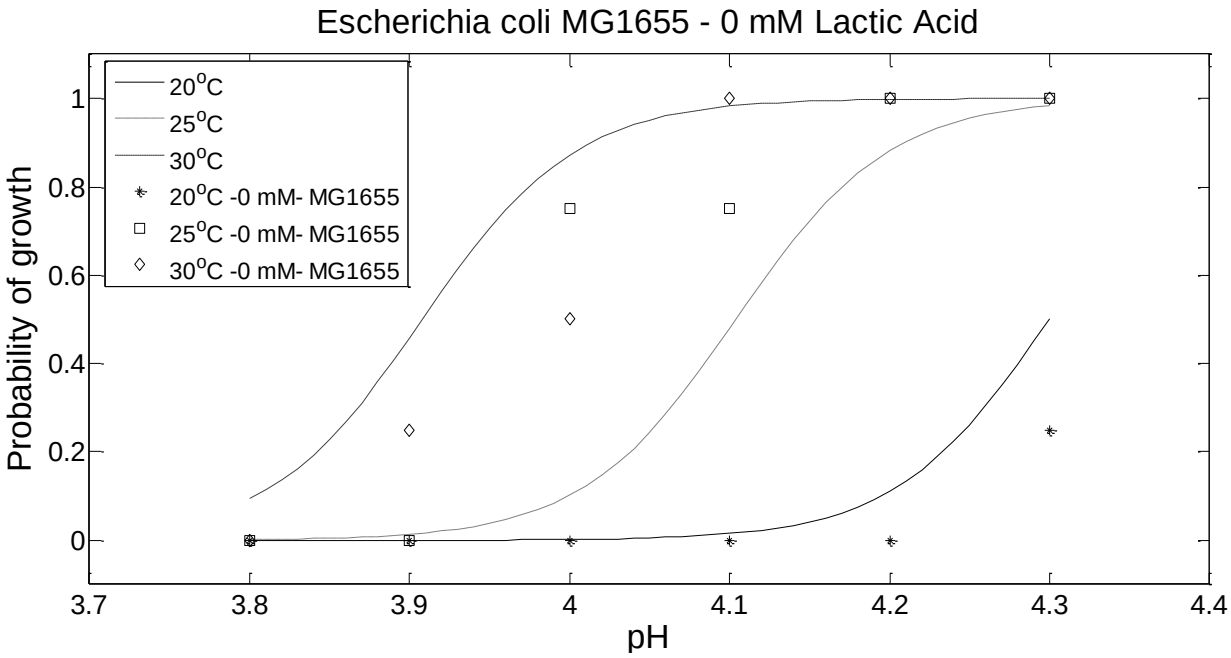


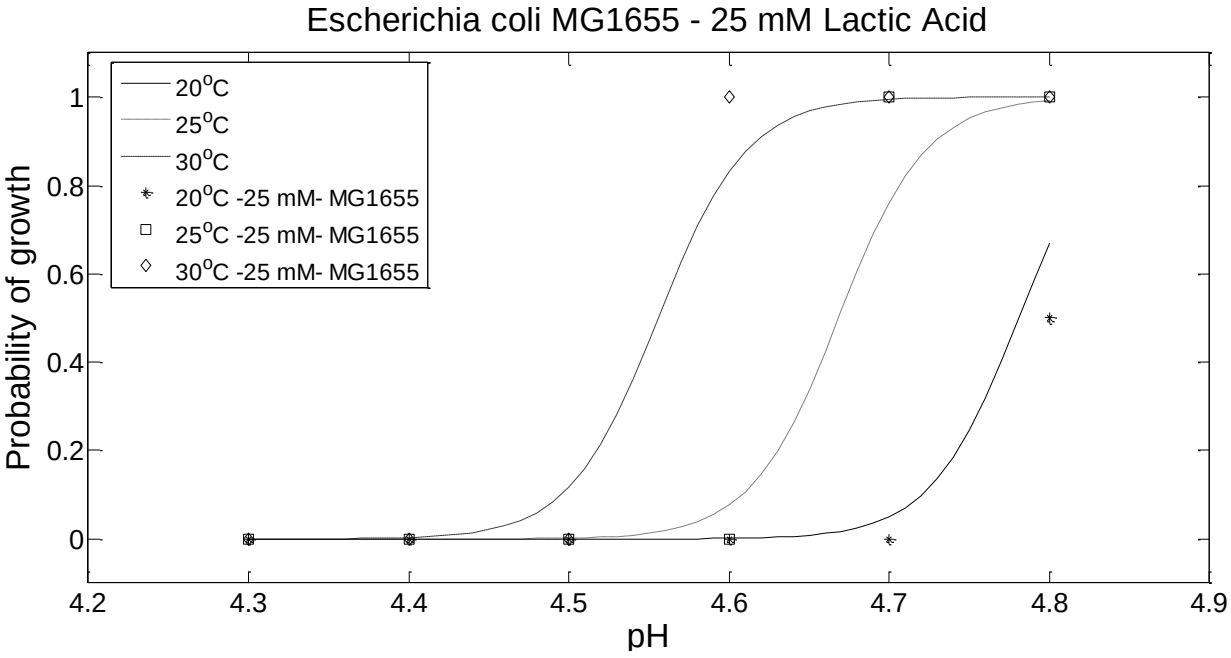





Escherichia coli MG1655 - 0 mM Lactic Acid
25%
50%
75%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli MG1655 - 25 mM Lactic Acid
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli MG1655 - 0 mM Lactic Acid
20°C
25°C
30°C
20°C -0 mM- MG1655
25°C -0 mM- MG1655
30°C -0 mM- MG1655
Probability of growth
pH
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

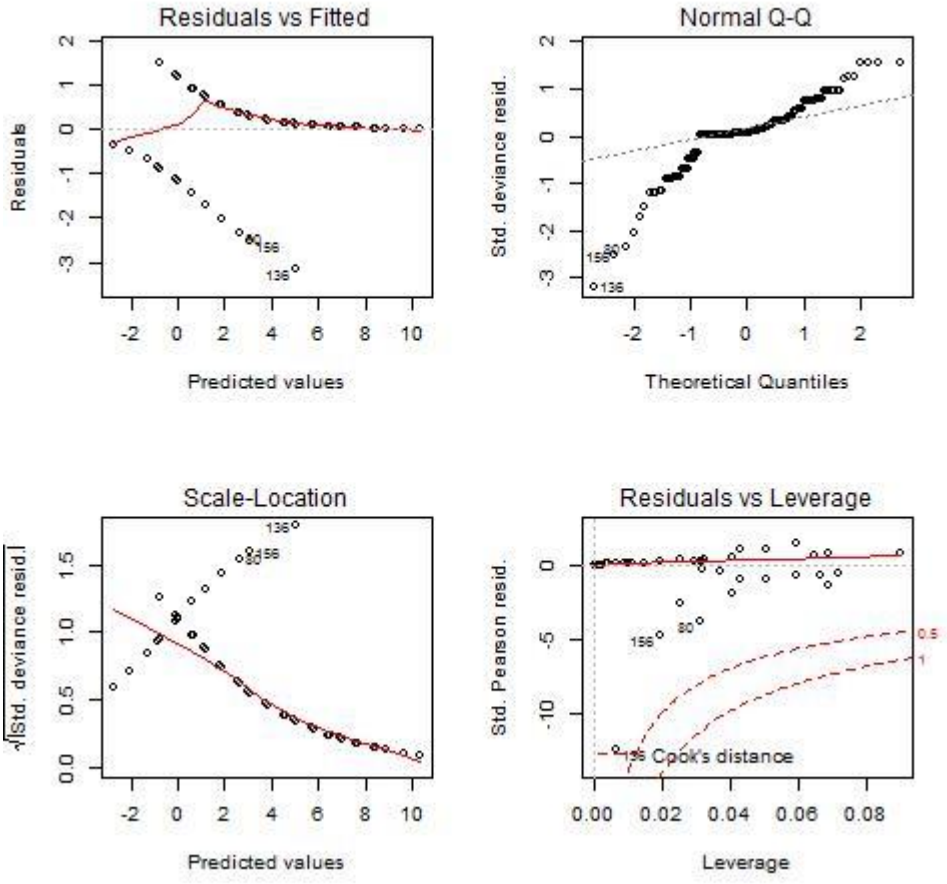

Escherichia coli MG1655 - 25 mM Lactic Acid
20°C
25°C
30°C
20°C -25 mM- MG1655
25°C -25 mM- MG1655
30°C -25 mM- MG1655
Probability of growth
pH
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

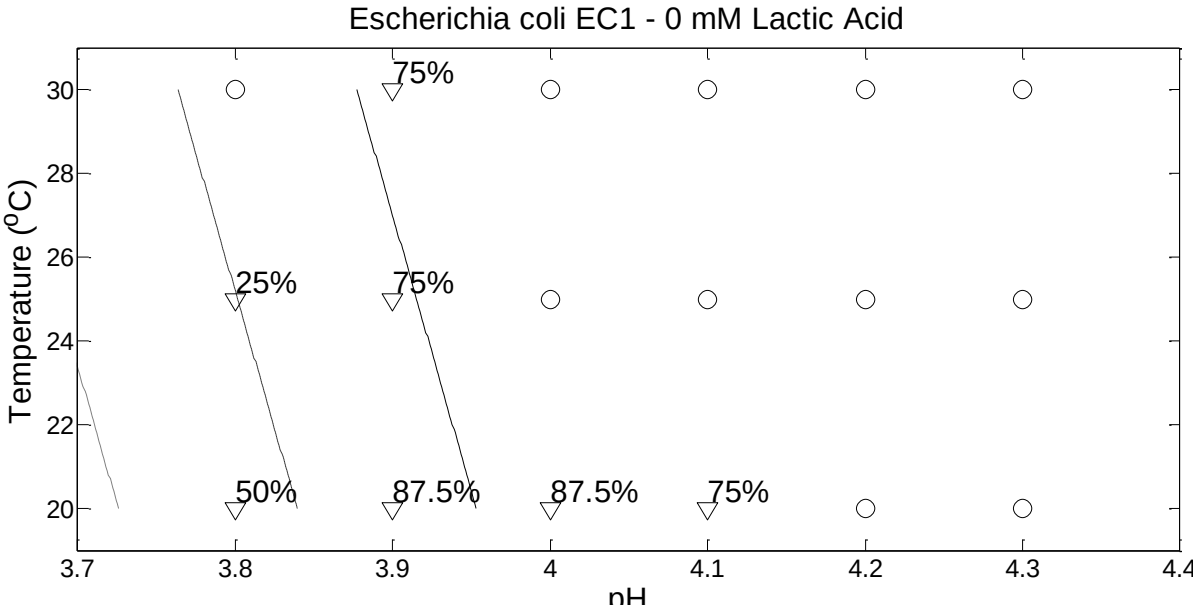
5. *E.coli* EC1 - isolated from minced meat

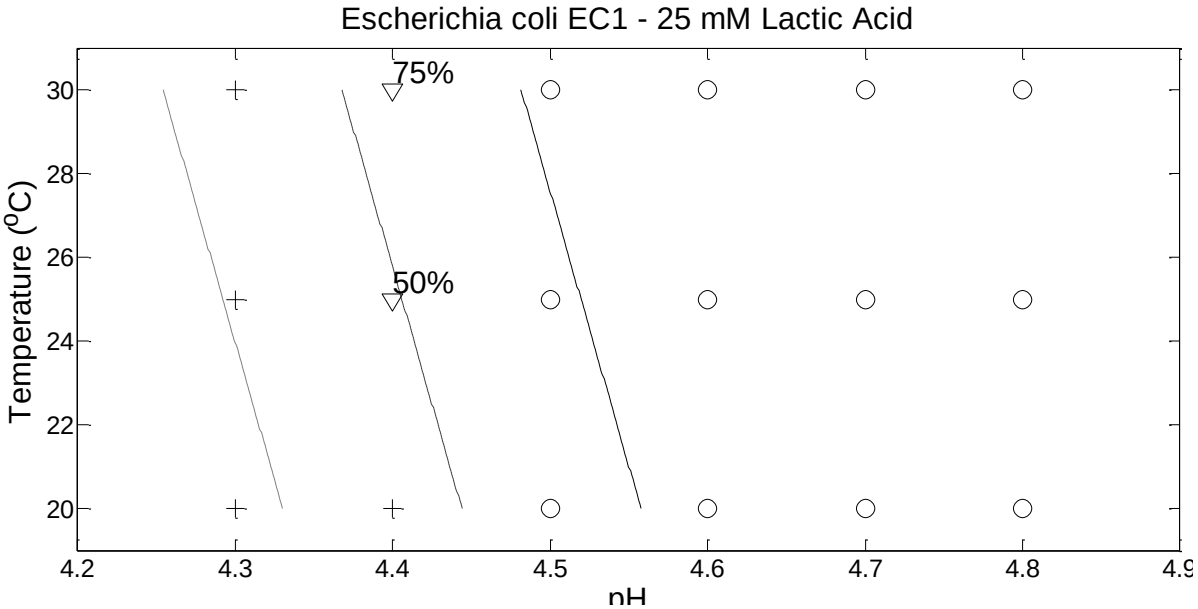
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-77.12	15.31	-5.04	0.00	-111.54	-50.93	0.00	0.00	0.00
pH	19.32	3.84	5.03	0.00	12.77	27.96	2.46E+08	3.50E+05	1.39E+12
LA	-0.47	0.09	-5.12	0.00	-0.67	-0.31	0.63	0.51	0.73
Temp	0.15	0.07	1.98	0.05	0.01	0.30	1.16	1.01	1.35

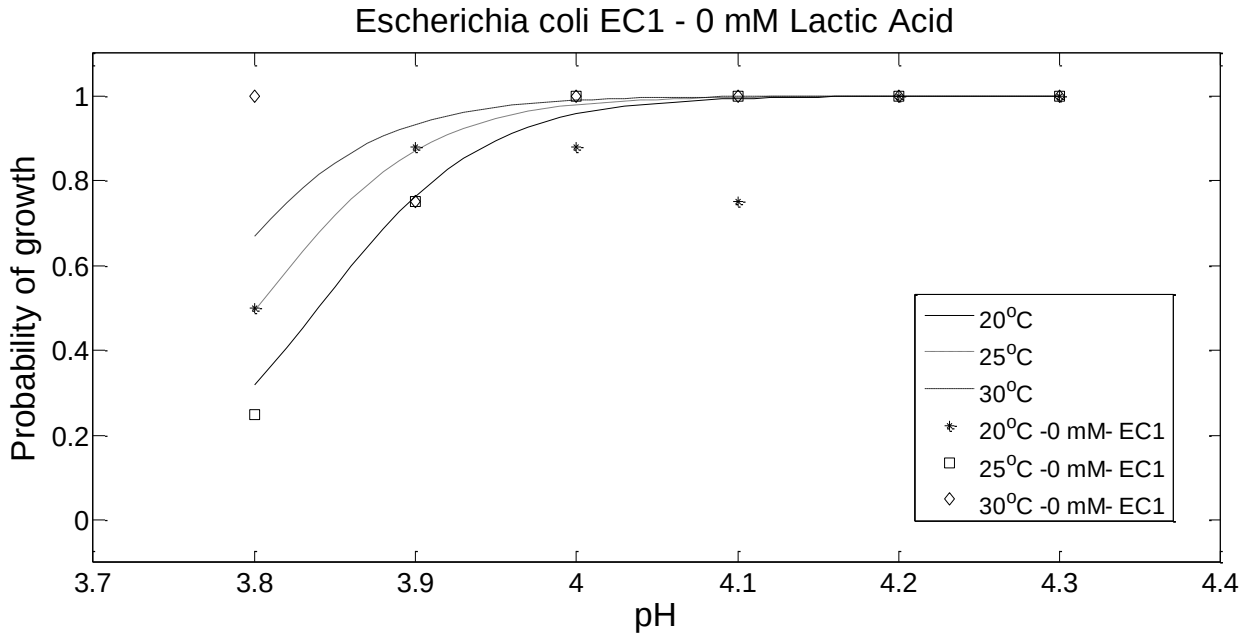
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	155.57	
pH	1	5.40	154	150.17	0.02
LA	1	68.85	153	81.31	0.00
Temp	1	4.29	152	77.03	0.04

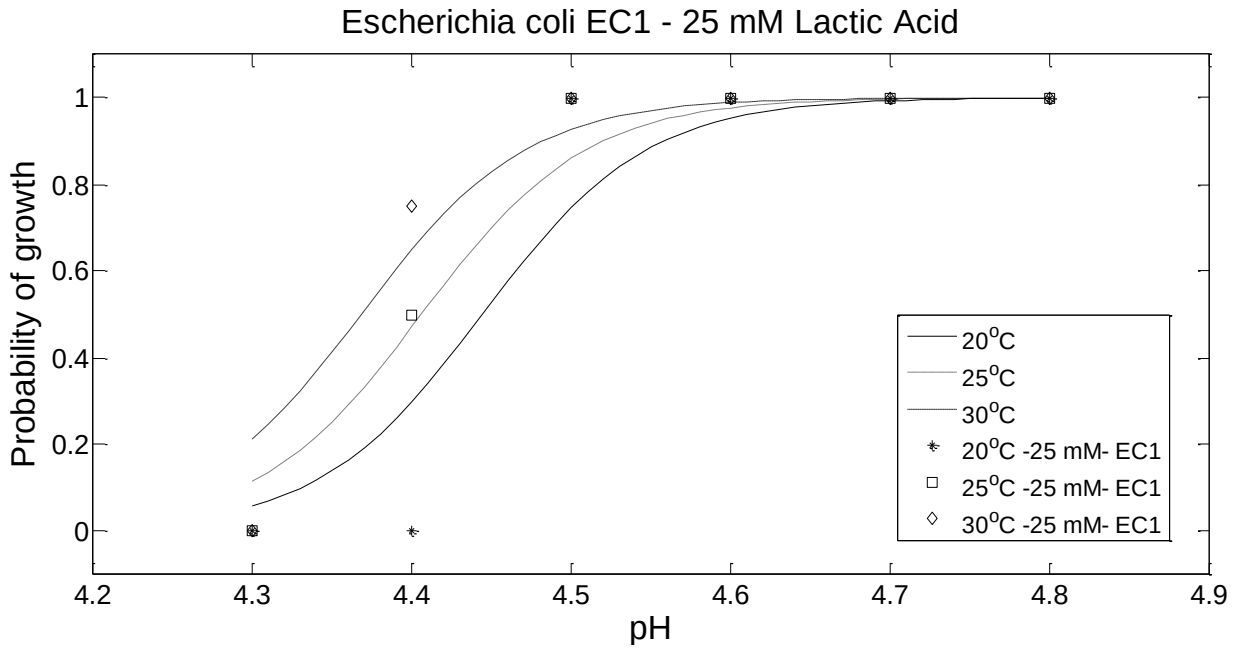
AIC	85.03
Likelihood Ratio	6.31E-17
Log-Likelihood	-38.51




Escherichia coli EC1 - 0 mM Lactic Acid
Temperature (°C)
pH
75%
25%
75%
50%
87.5%
87.5%
75%


Escherichia coli EC1 - 25 mM Lactic Acid
Temperature (°C)
pH
75%
50%


Escherichia coli EC1 - 0 mM Lactic Acid
Probability of growth
pH
20°C
25°C
30°C
20°C -0 mM- EC1
25°C -0 mM- EC1
30°C -0 mM- EC1

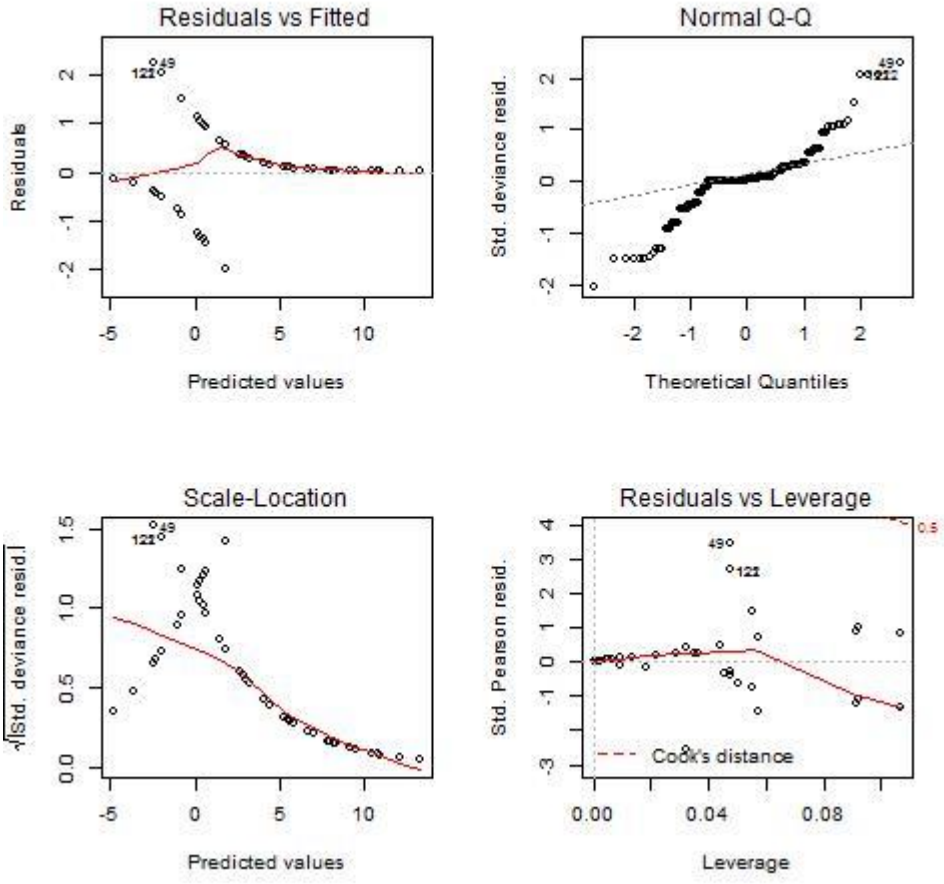

Escherichia coli EC1 - 25 mM Lactic Acid
Probability of growth
pH
20°C
25°C
30°C
20°C -25 mM- EC1
25°C -25 mM- EC1
30°C -25 mM- EC1

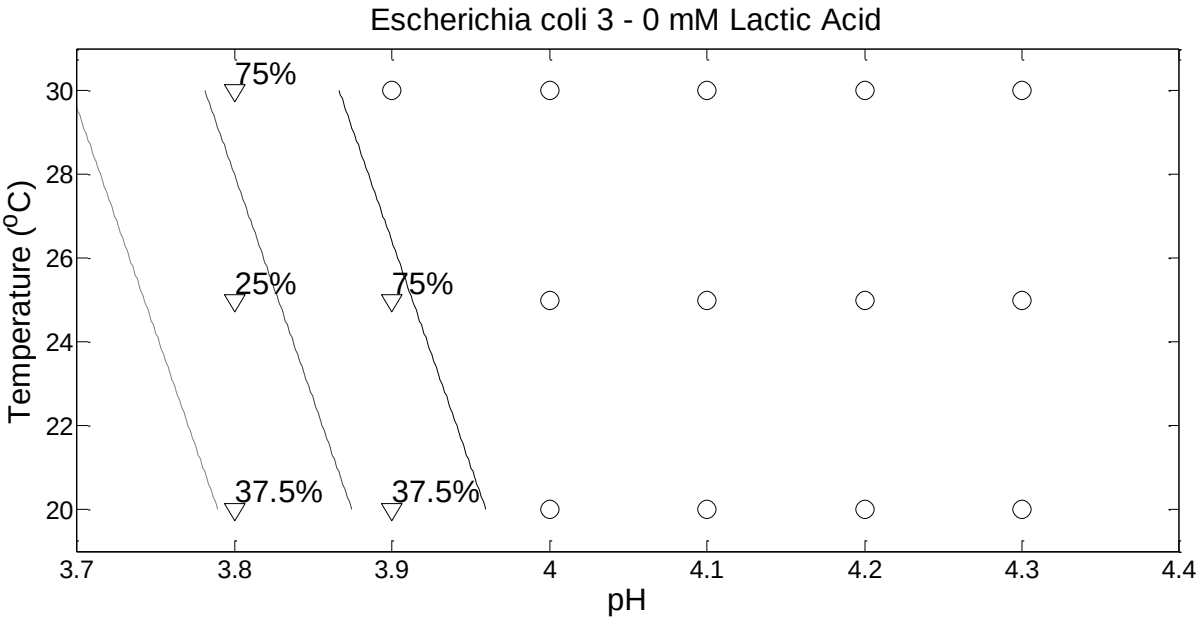
6. *E.coli* EC3 - isolated from minced meat

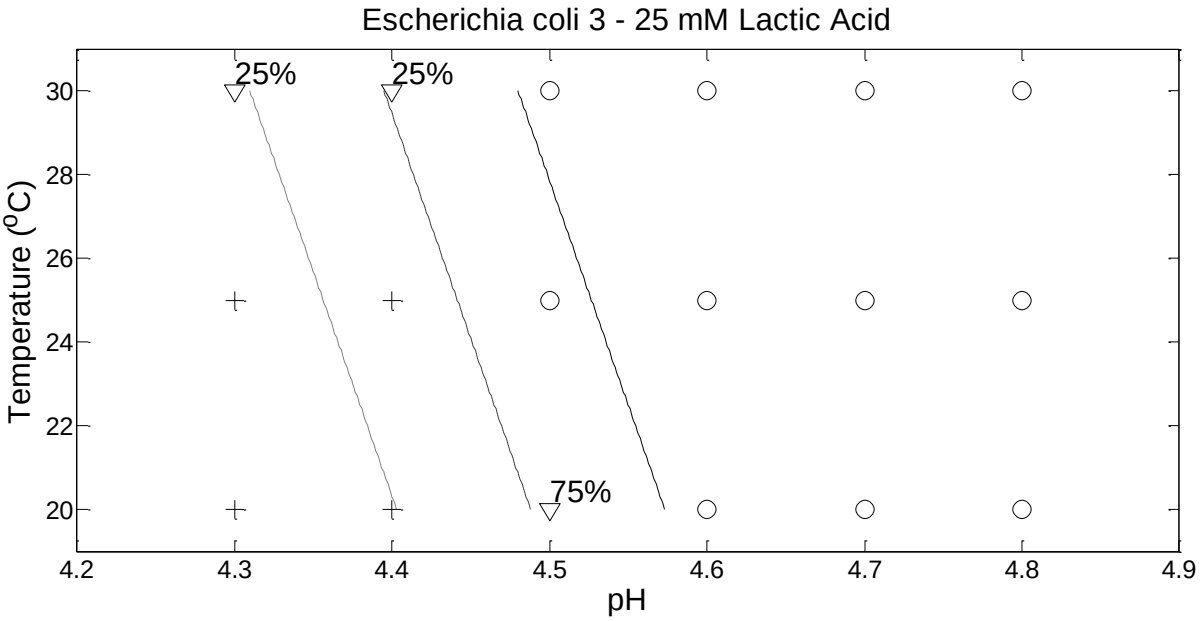
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
Intercept	-104.78	20.54	-5.10	0.00	-152.26	-70.37	0.00	0.00	0.00
pH	25.80	5.07	5.09	0.00	17.31	37.49	1.61E+11	3.30E+07	1.92E+16
LA	-0.63	0.12	-5.10	0.00	-0.92	-0.43	0.53	0.40	0.65
Temp	0.24	0.09	2.76	0.01	0.08	0.43	1.27	1.08	1.53

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	173.22	
pH	1	7.30	154	165.91	0.01
LA	1	91.64	153	74.28	0.00
Temp	1	9.27	152	65.00	0.00

AIC	73.00
Likelihood Ratio	2.66E-23
Log-Likelihood	-32.50




Escherichia coli 3 - 0 mM Lactic Acid
75%
25%
75%
37.5%
37.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

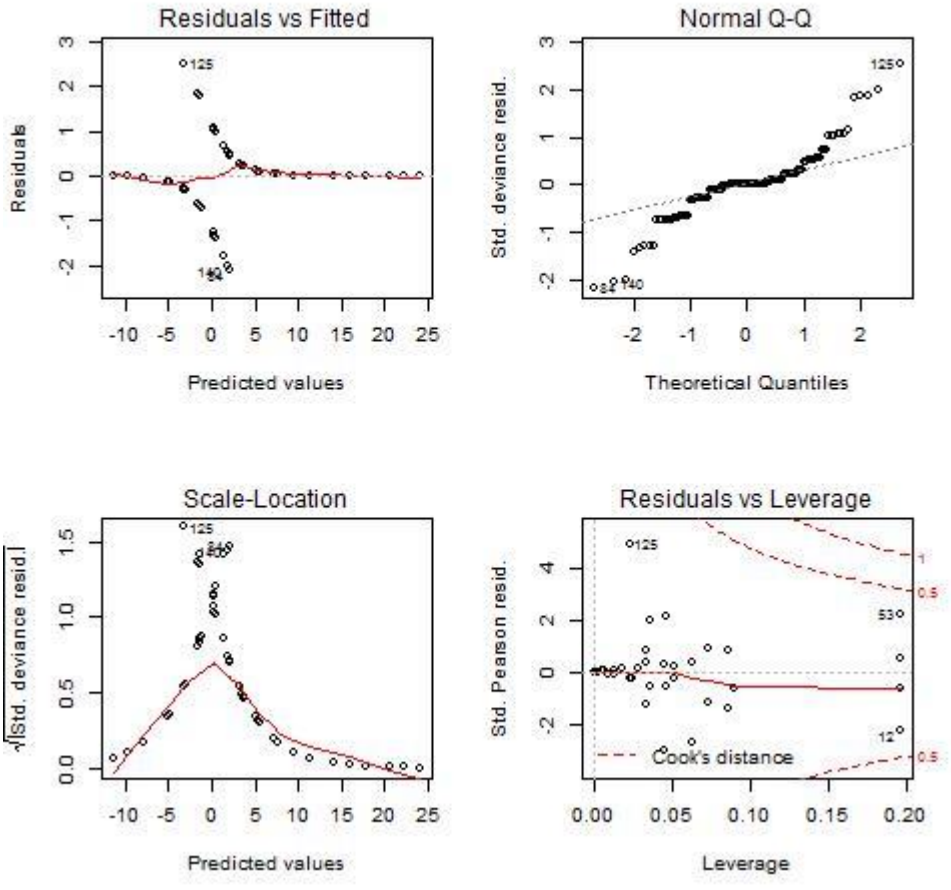

Escherichia coli 3 - 25 mM Lactic Acid
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

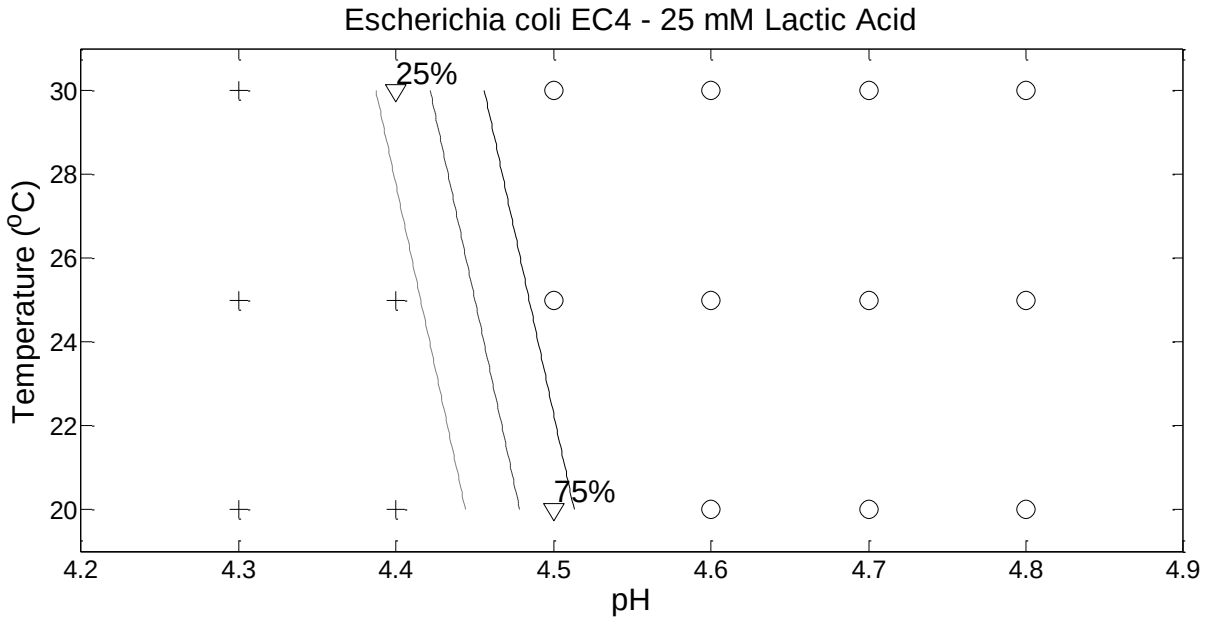
7. *E.coli* EC4 - isolated from compost

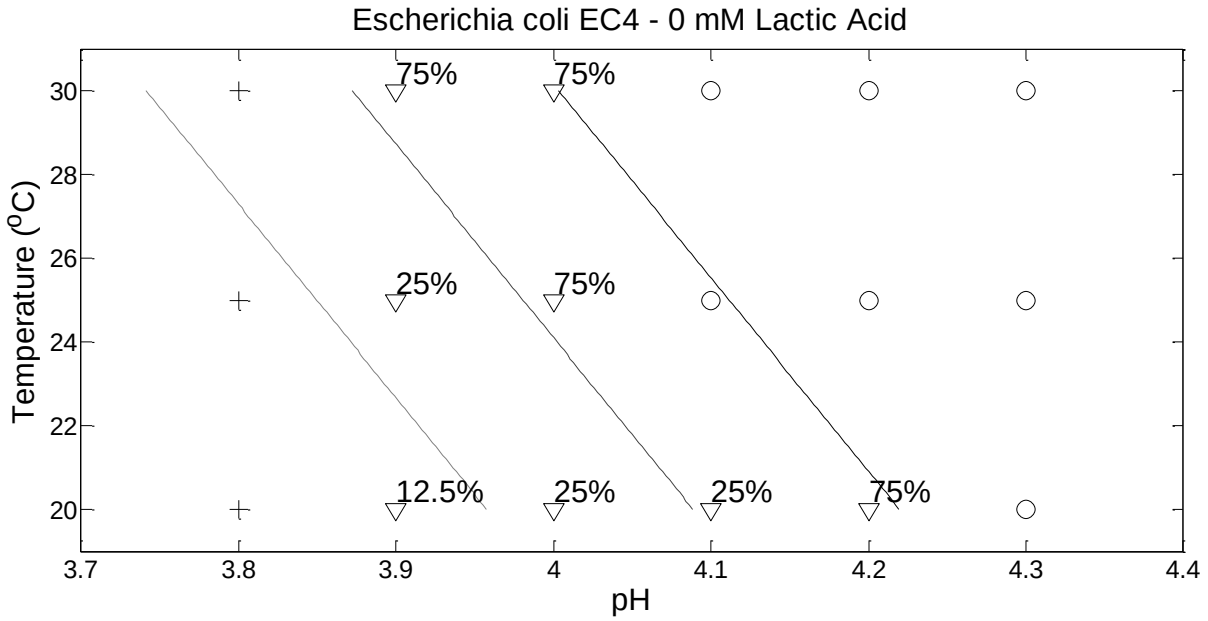
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-75.82	16.03	-4.73	0.00	-112.93	-48.97	0.00	0.00	0.00
pH	16.77	3.65	4.59	0.00	10.63	25.21	1.92E+07	4.15E+04	8.86E+10
Temp	0.36	0.10	3.60	0.00	0.18	0.59	1.44	1.20	1.80
LA	-8.67	2.96	-2.93	0.00	-15.70	-3.75	0.00	0.00	0.02
pH:LA	1.88	0.67	2.82	0.00	0.77	3.45	6.54	2.16	31.62

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	210.46	
pH	1	46.39	154	164.07	0.00
Temp	1	8.17	153	155.90	0.00
LA	1	79.35	152	76.55	0.00
pH:LA	1	15.82	151	60.73	0.00

AIC	70.73
Likelihood Ratio	2.33E-31
Log-Likelihood	-30.37




Escherichia coli EC4 - 25 mM Lactic Acid
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

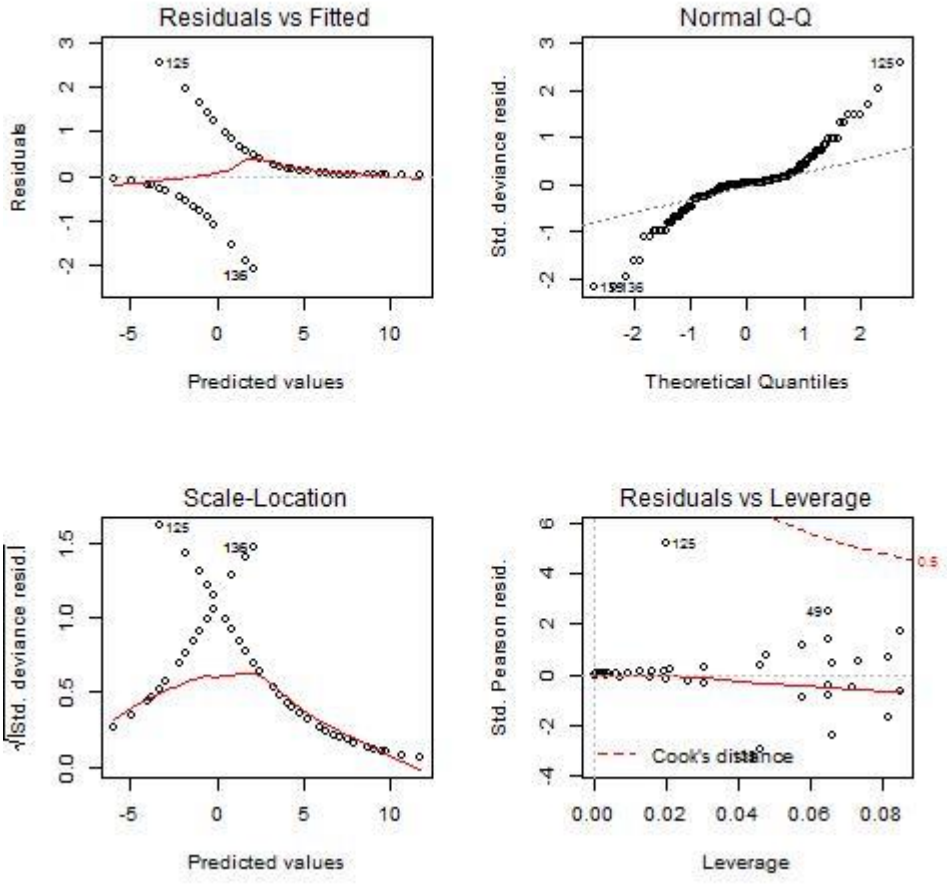

Escherichia coli EC4 - 0 mM Lactic Acid
75%
75%
25%
75%
12.5%
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

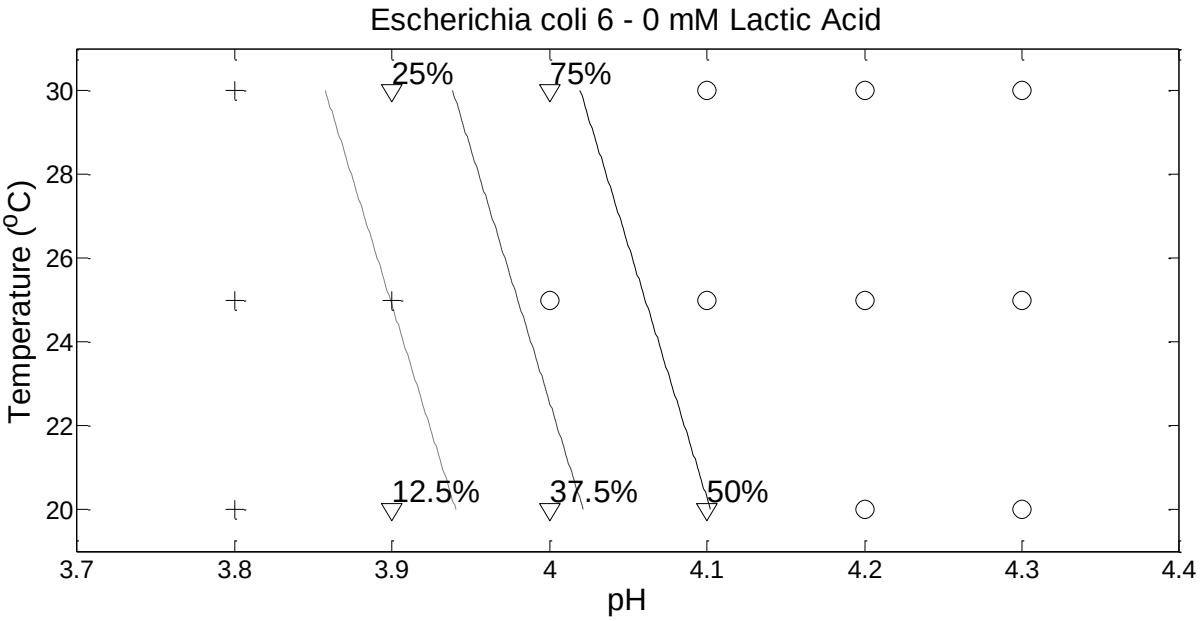
8. *E.coli* EC6 - isolated from compost

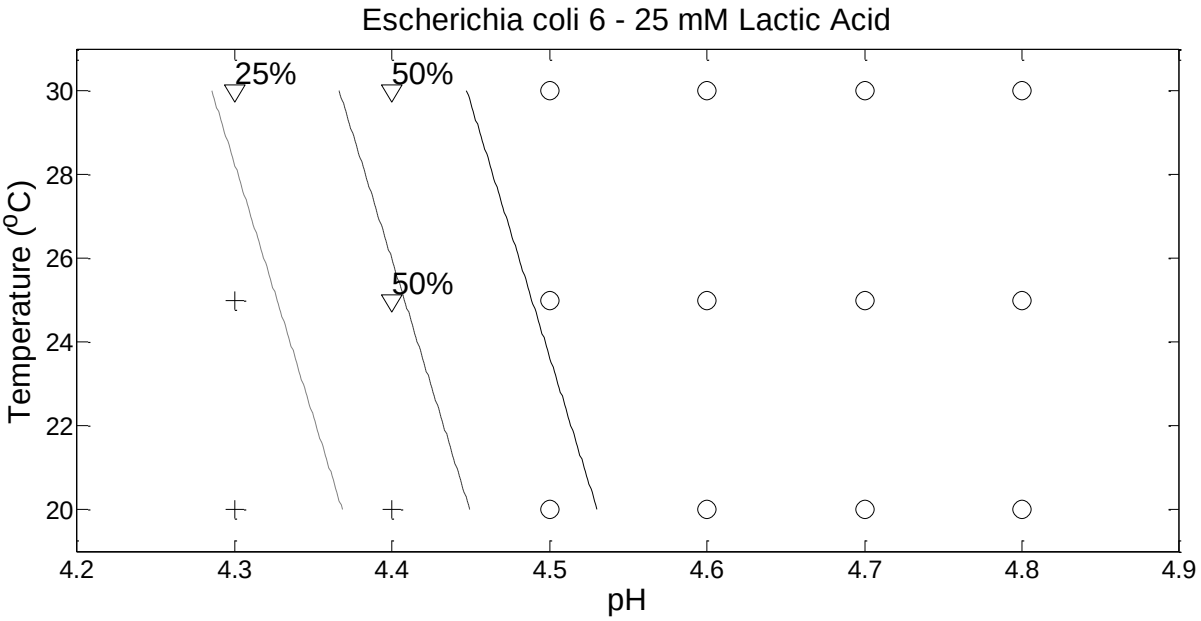
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-113.64	21.11	-5.38	0.00	-162.54	-78.50	0.00	0.00	0.00
pH	27.14	5.07	5.36	0.00	18.71	38.89	6.13E+11	1.33E+08	7.79E+16
Temp	0.22	0.09	2.63	0.01	0.07	0.41	1.25	1.07	1.50
LA	-0.46	0.09	-5.04	0.00	-0.68	-0.31	0.63	0.51	0.73

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	204.81	
pH	1	58.56	154	146.26	0.00
Temp	1	4.15	153	142.11	0.04
LA	1	78.36	152	63.75	0.00

AIC	71.75
Likelihood Ratio	2.23E-30
Log-Likelihood	-31.88




Escherichia coli 6 - 0 mM Lactic Acid
25%
75%
12.5%
37.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

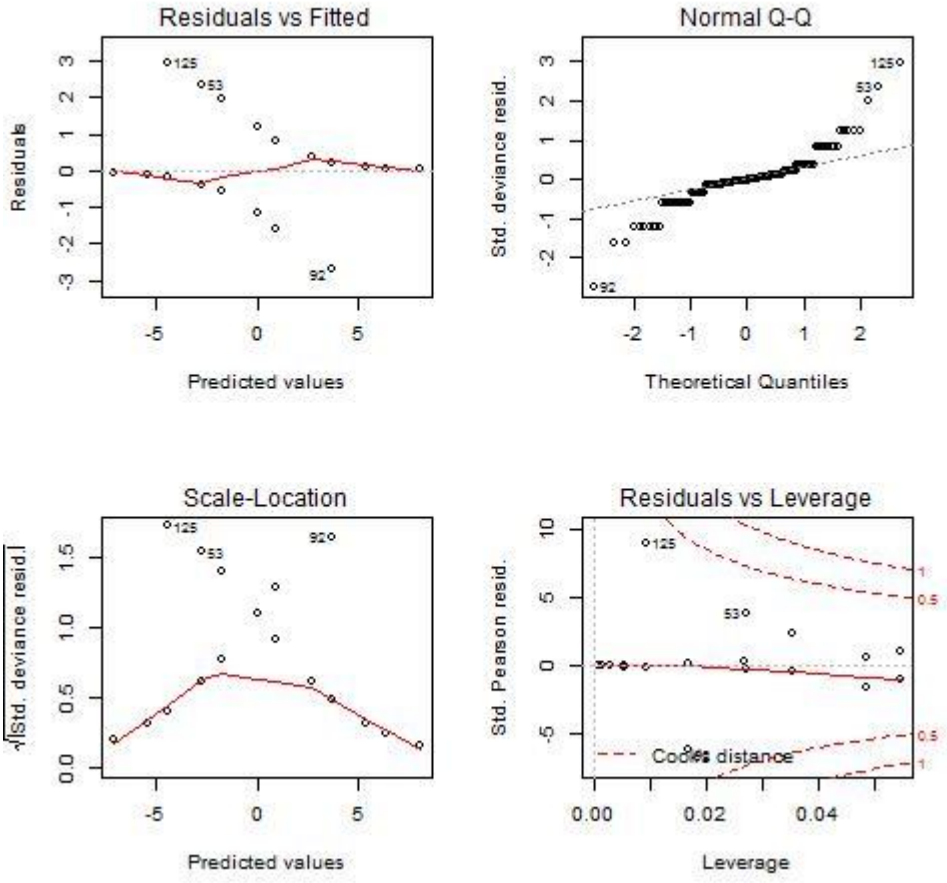

Escherichia coli 6 - 25 mM Lactic Acid
25%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

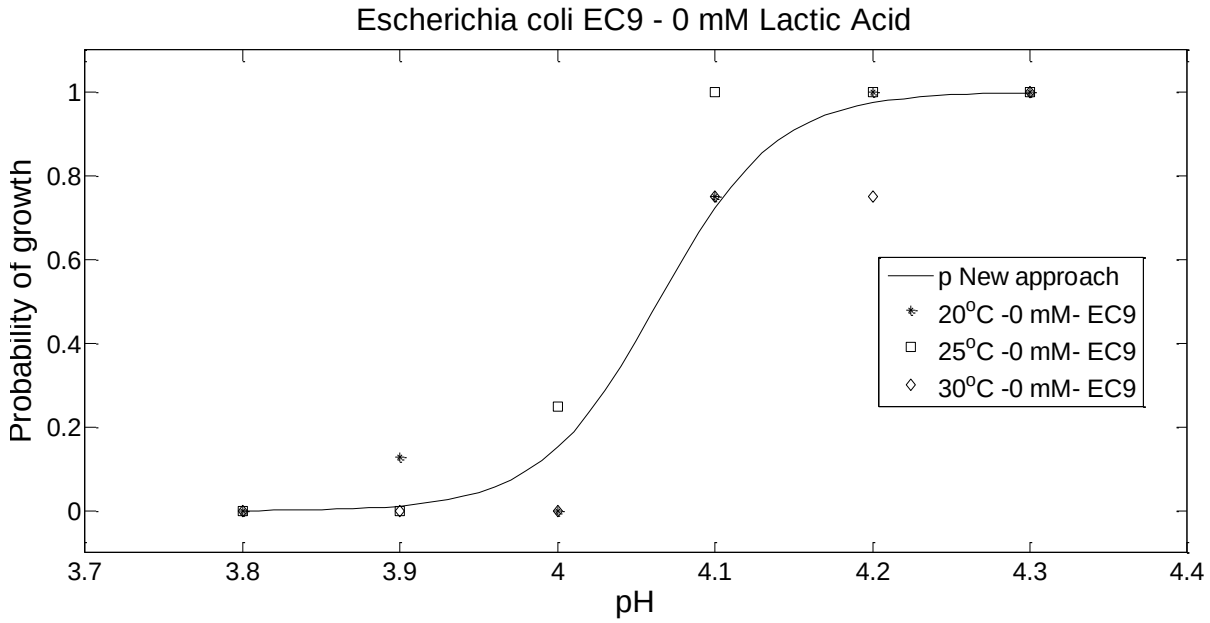
9. *E.coli* EC9 - isolated from sand

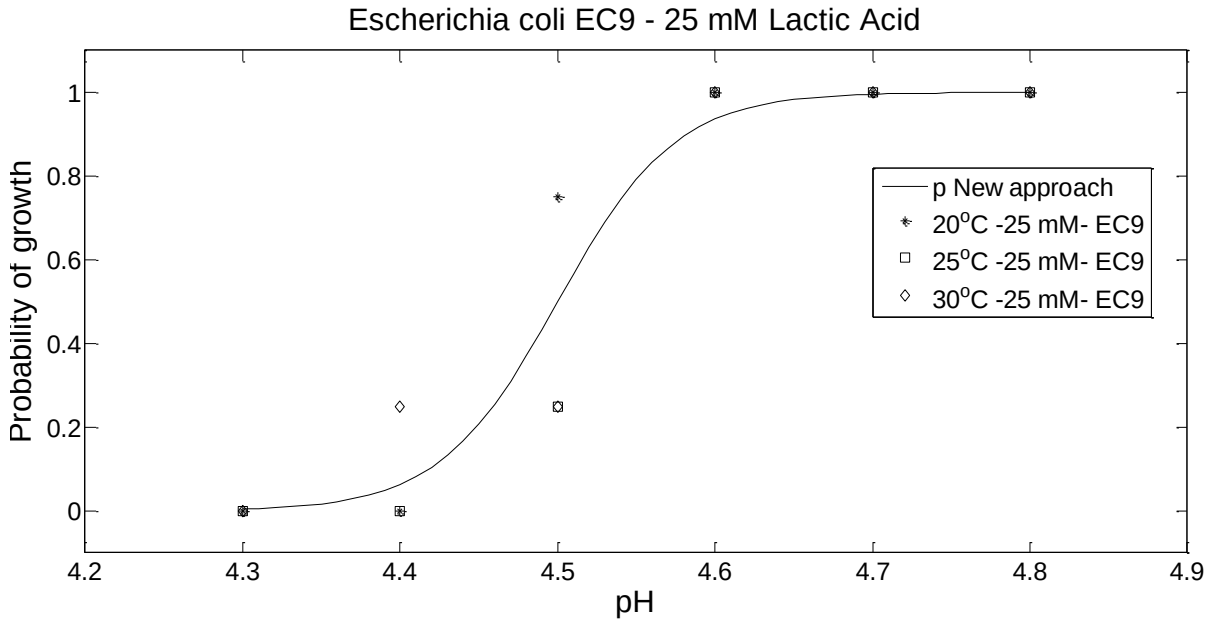
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-108.83	19.46	-5.59	0.00	-154.10	-76.52	0.00	0.00	0.00
pH	26.78	4.80	5.58	0.00	18.82	37.93	4.26E+11	1.48E+08	2.97E+16
LA	-0.47	0.09	-5.25	0.00	-0.67	-0.32	0.63	0.51	0.73

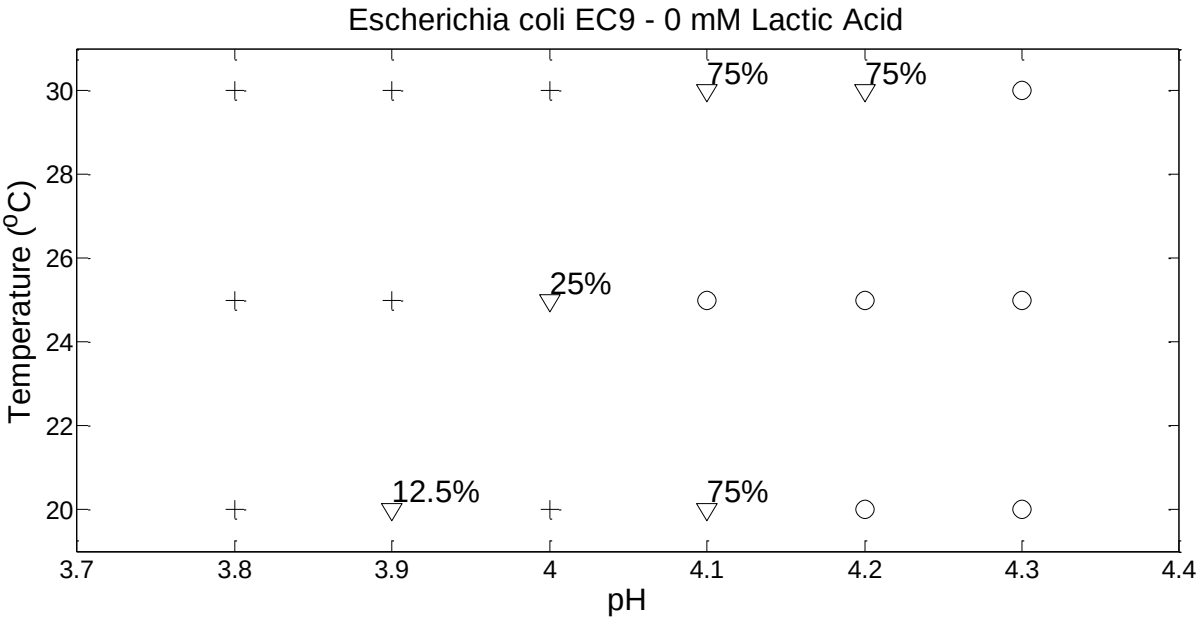
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.24	
pH	1	59.85	154	156.39	0.00
LA	1	93.48	153	62.91	0.00

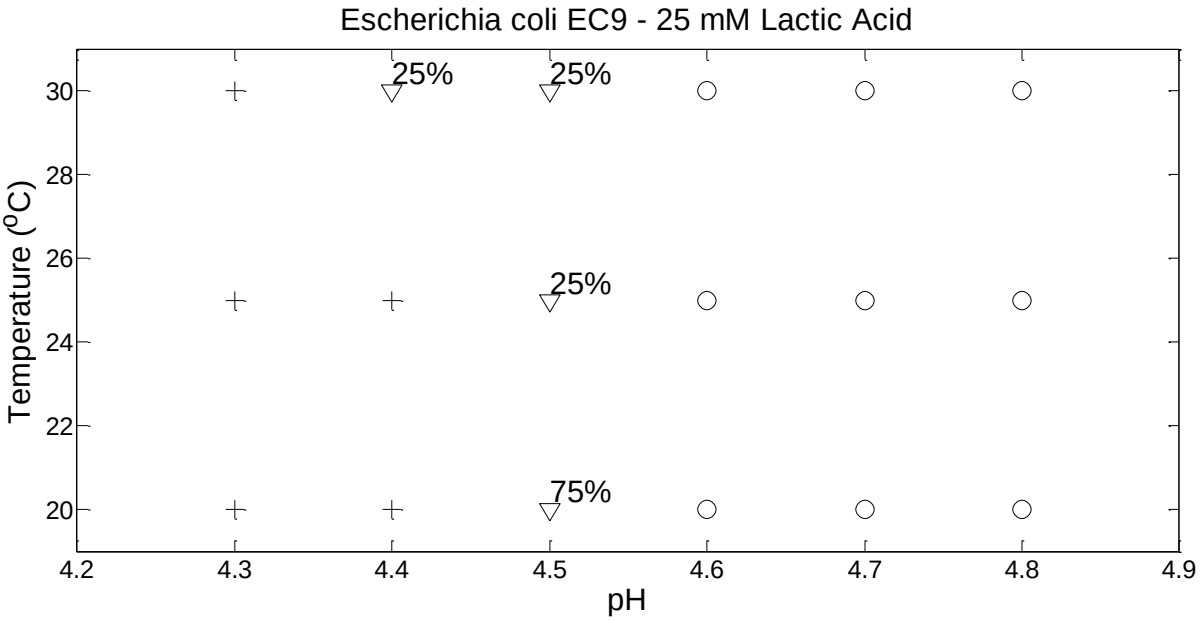
AIC	68.91
Likelihood Ratio	5.07E-34
Log-Likelihood	-31.45




Escherichia coli EC9 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC9
25°C -0 mM- EC9
30°C -0 mM- EC9
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC9 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC9
25°C -25 mM- EC9
30°C -25 mM- EC9
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC9 - 0 mM Lactic Acid
75%
75%
25%
12.5%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

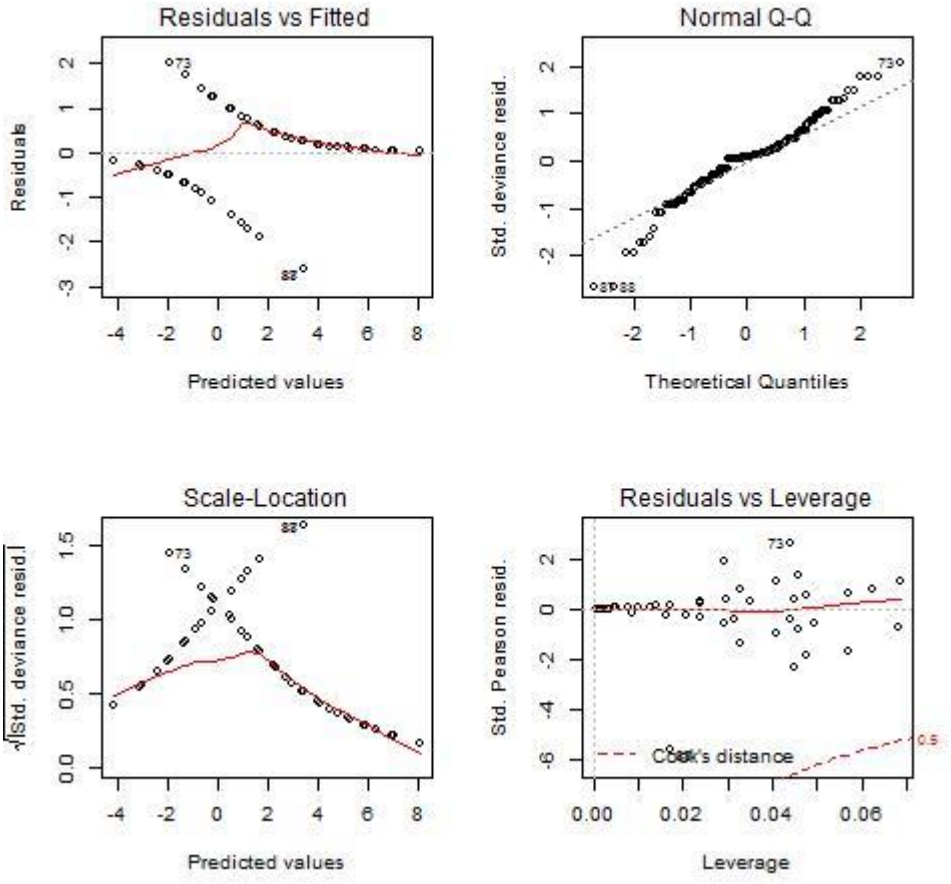

Escherichia coli EC9 - 25 mM Lactic Acid
25%
25%
25%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

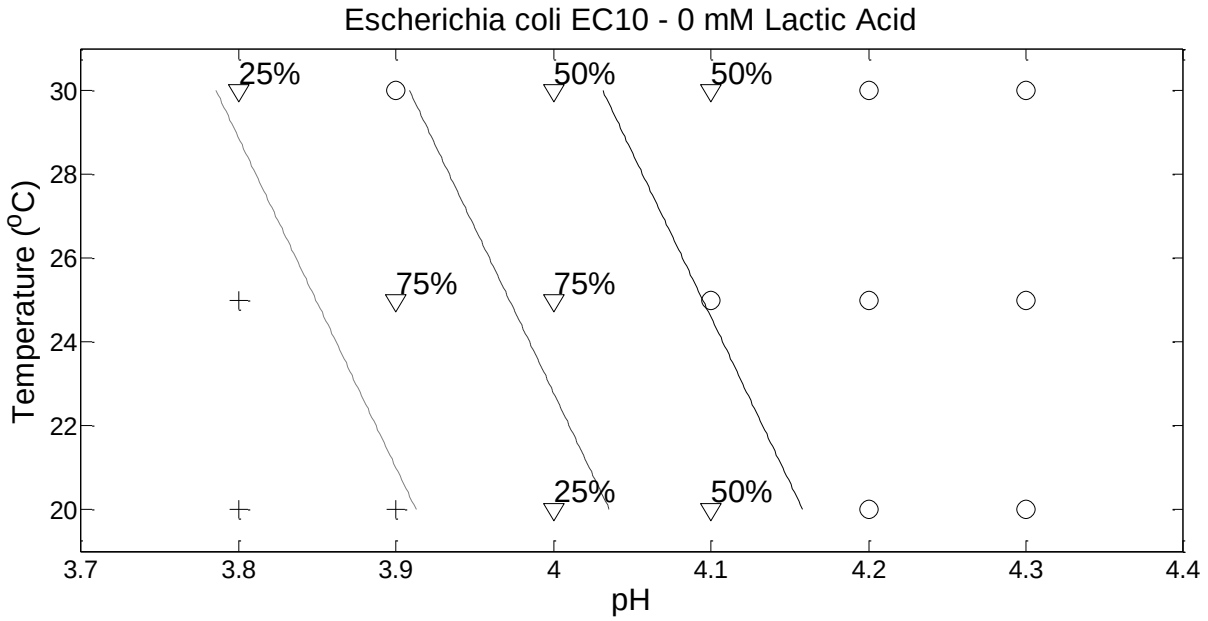
10. *E.coli* EC10 – isolated from chicken feces

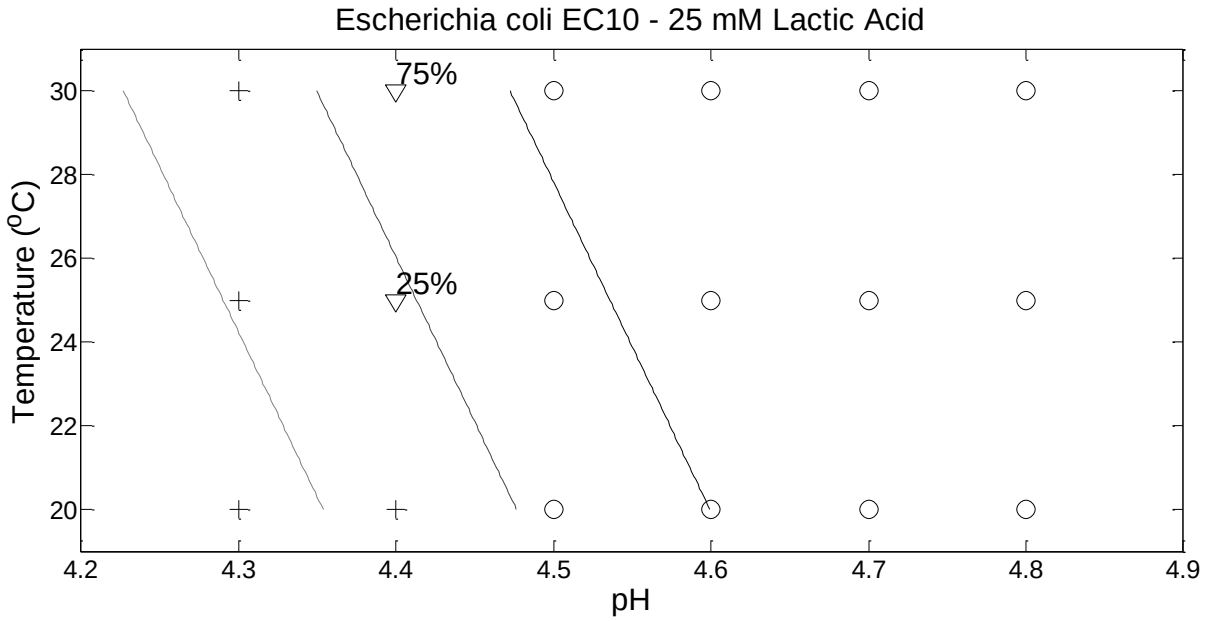
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-76.75	12.66	-6.06	0.00	-105.08	-54.89	0.00	0.00	0.00
pH	17.89	2.98	6.00	0.00	12.74	24.56	5.91E+07	3.40E+05	4.66E+10
Temp	0.23	0.07	3.20	0.00	0.10	0.38	1.26	1.10	1.46
LA	-0.32	0.06	-5.37	0.00	-0.45	-0.21	0.73	0.64	0.81

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	204.81	
pH	1	46.96	154	157.86	0.00
Temp	1	7.75	153	150.11	0.01
LA	1	59.91	152	90.20	0.00

AIC	98.20
Likelihood Ratio	1.11E-24
Log-Likelihood	-45.10




Escherichia coli EC10 - 0 mM Lactic Acid
25%
50%
50%
75%
75%
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

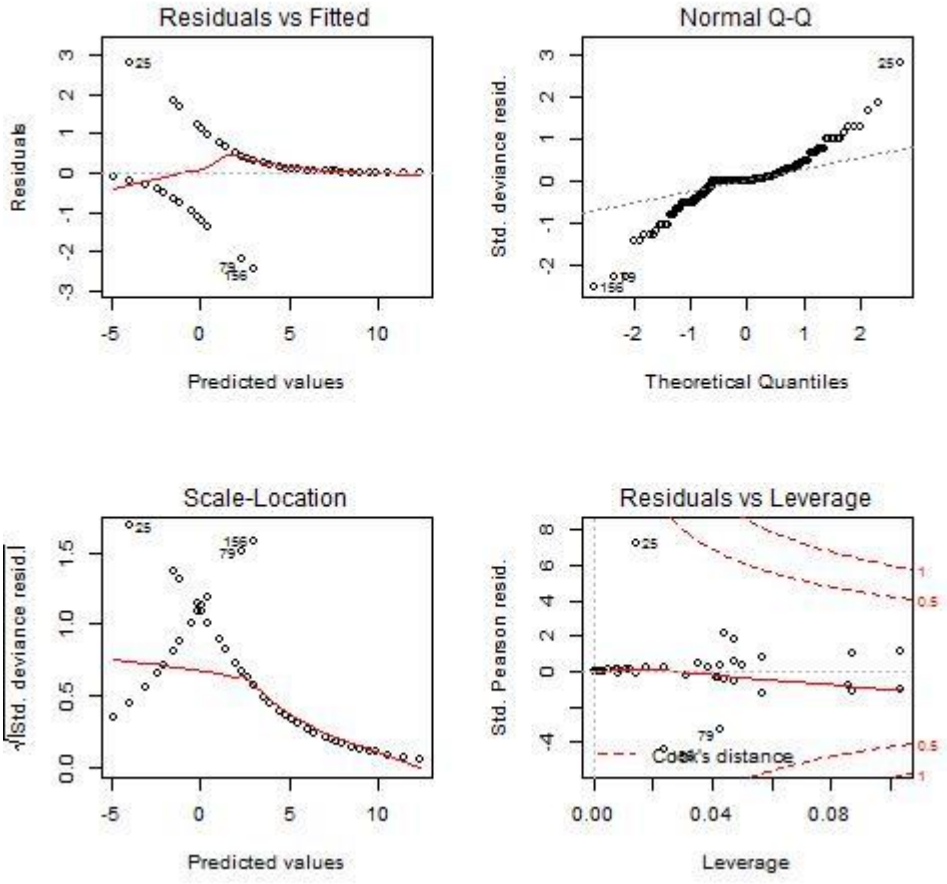

Escherichia coli EC10 - 25 mM Lactic Acid
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

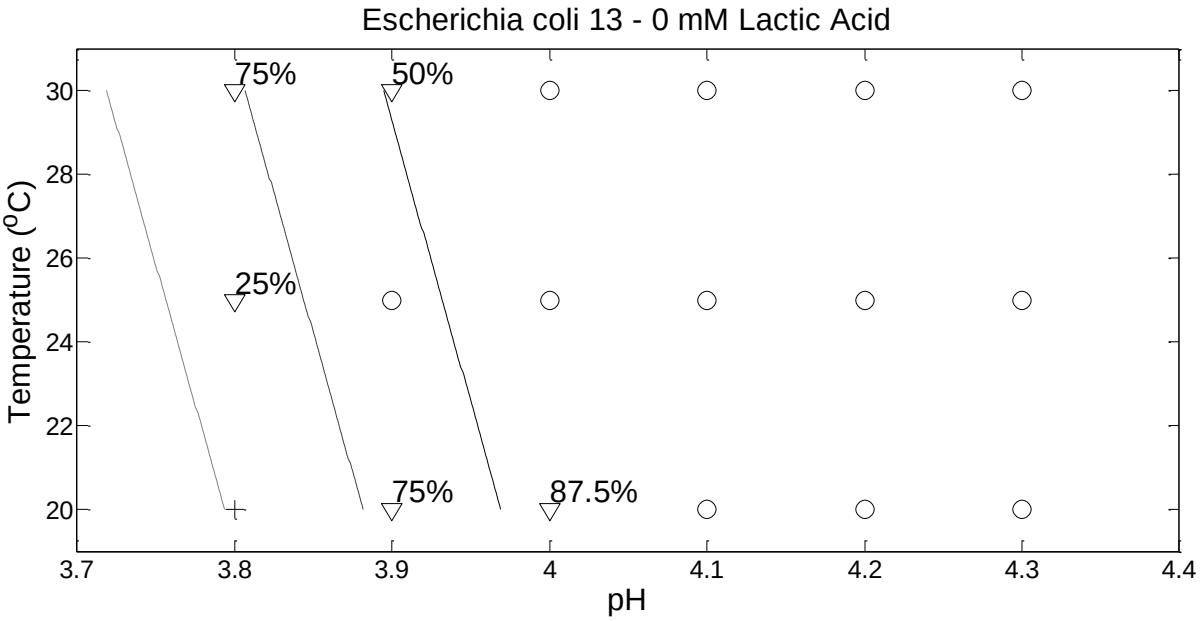
11. *E.coli* EC13 - isolated from chicken feces

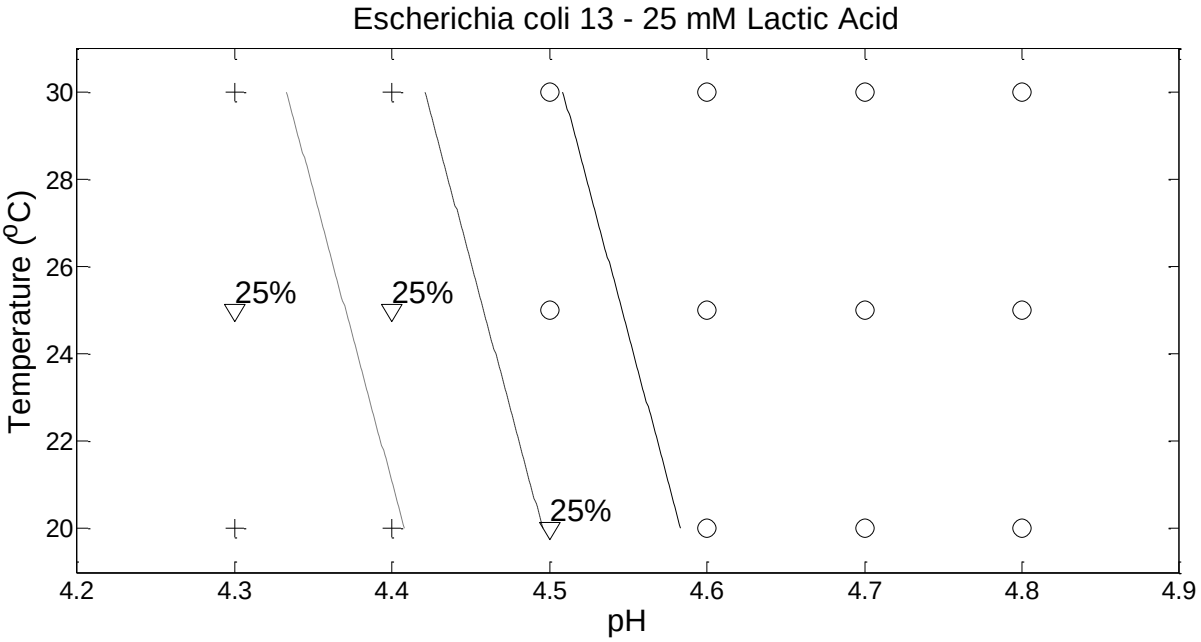
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-100.90	19.06	-5.29	0.00	-144.67	-68.78	0.00	0.00	0.00
pH	25.03	4.72	5.30	0.00	17.07	35.84	7.41E+10	2.59E+07	3.68E+15
Temp	0.19	0.08	2.31	0.02	0.04	0.36	1.21	1.04	1.43
LA	-0.61	0.12	-5.27	0.00	-0.88	-0.42	0.54	0.41	0.66

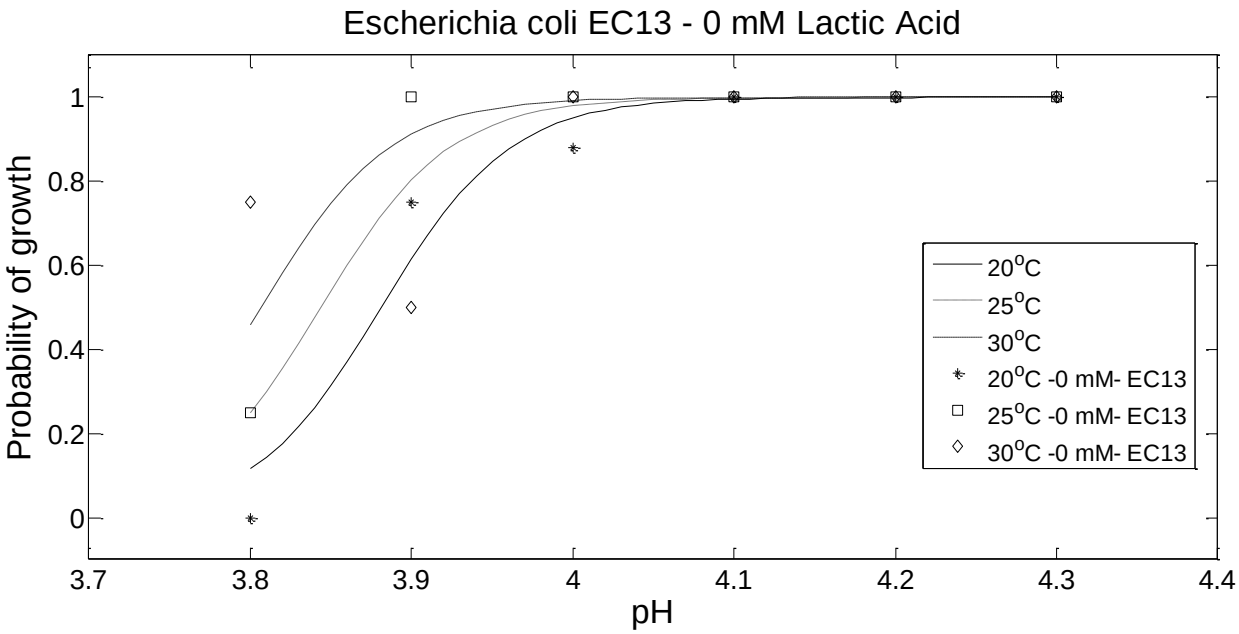
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	181.74	
pH	1	8.40	154	173.34	0.00
Temp	1	1.98	153	171.36	0.16
LA	1	102.77	152	68.60	0.00

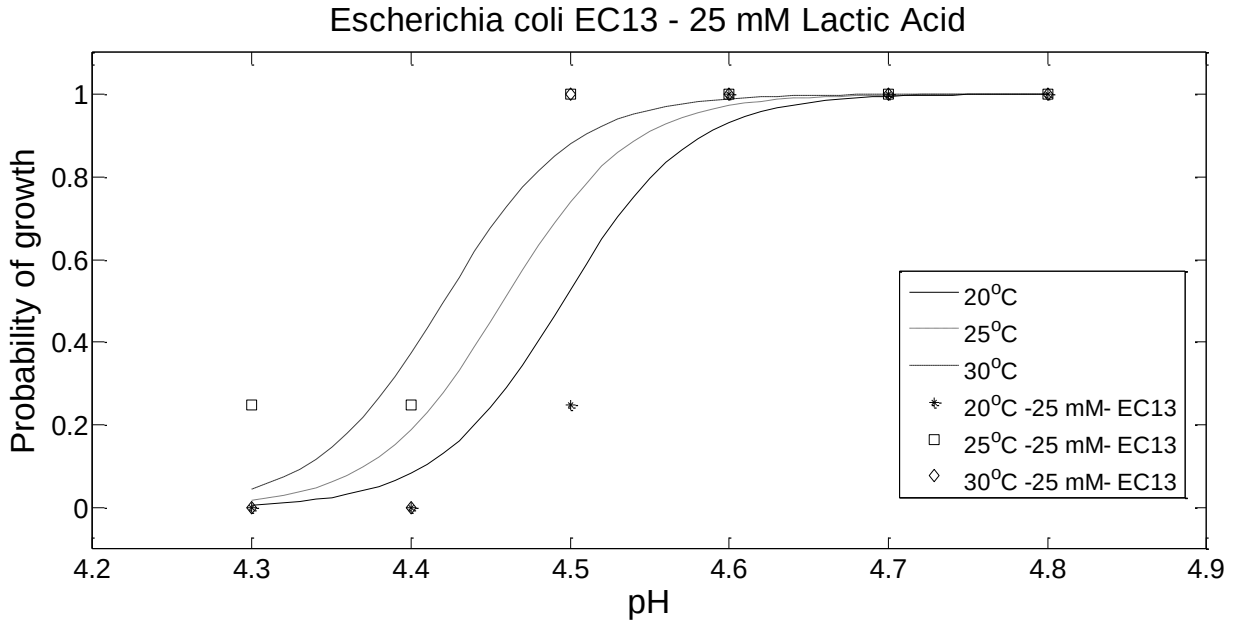
AIC	76.60
Likelihood Ratio	2.31E-24
Log-Likelihood	-34.30




Escherichia coli 13 - 0 mM Lactic Acid
75%
50%
25%
75%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli 13 - 25 mM Lactic Acid
25%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC13 - 0 mM Lactic Acid
Probability of growth
pH
20°C
25°C
30°C
20°C -0 mM- EC13
25°C -0 mM- EC13
30°C -0 mM- EC13

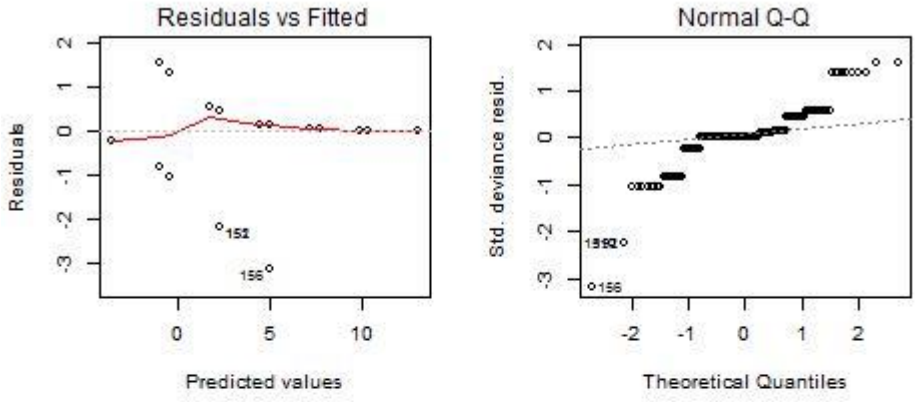

Escherichia coli EC13 - 25 mM Lactic Acid
Probability of growth
pH
20°C
25°C
30°C
20°C -25 mM- EC13
25°C -25 mM- EC13
30°C -25 mM- EC13

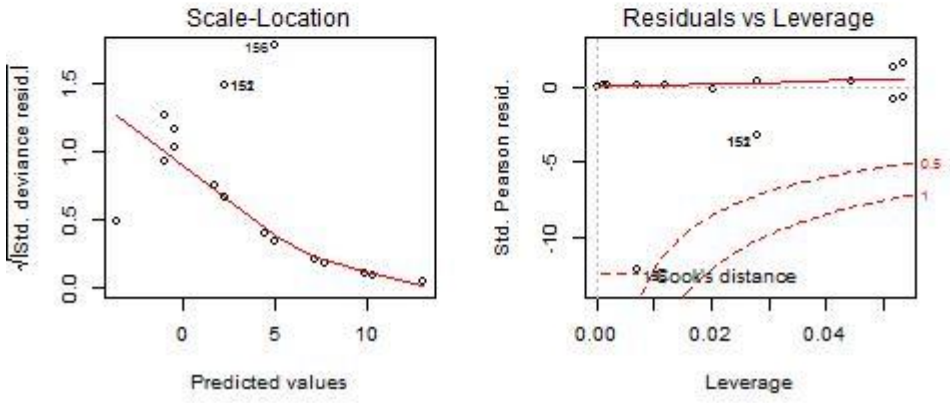
12. *E.coli* EC15 - isolated from chicken feces

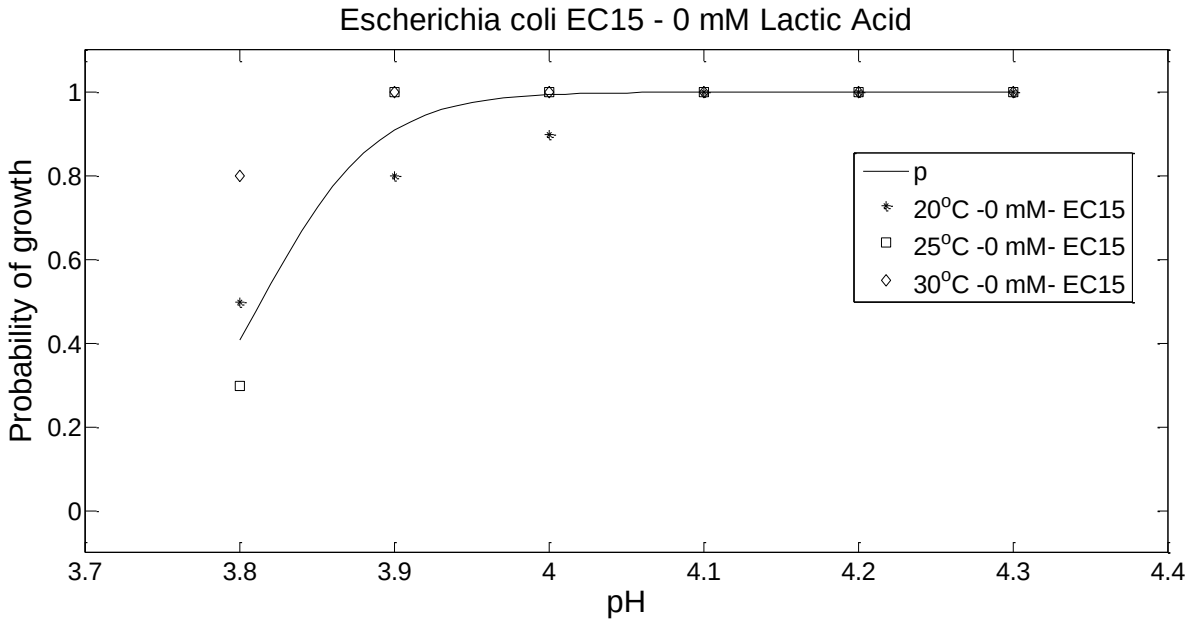
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-102.29	21.14	-4.84	0.00	-150.99	-66.92	0.00	0.00	0.00
LA	-0.66	0.14	-4.90	0.00	-0.98	-0.44	0.51	0.38	0.64
pH	26.82	5.52	4.86	0.00	17.61	39.57	4.46E+11	4.44E+07	1.53E+17

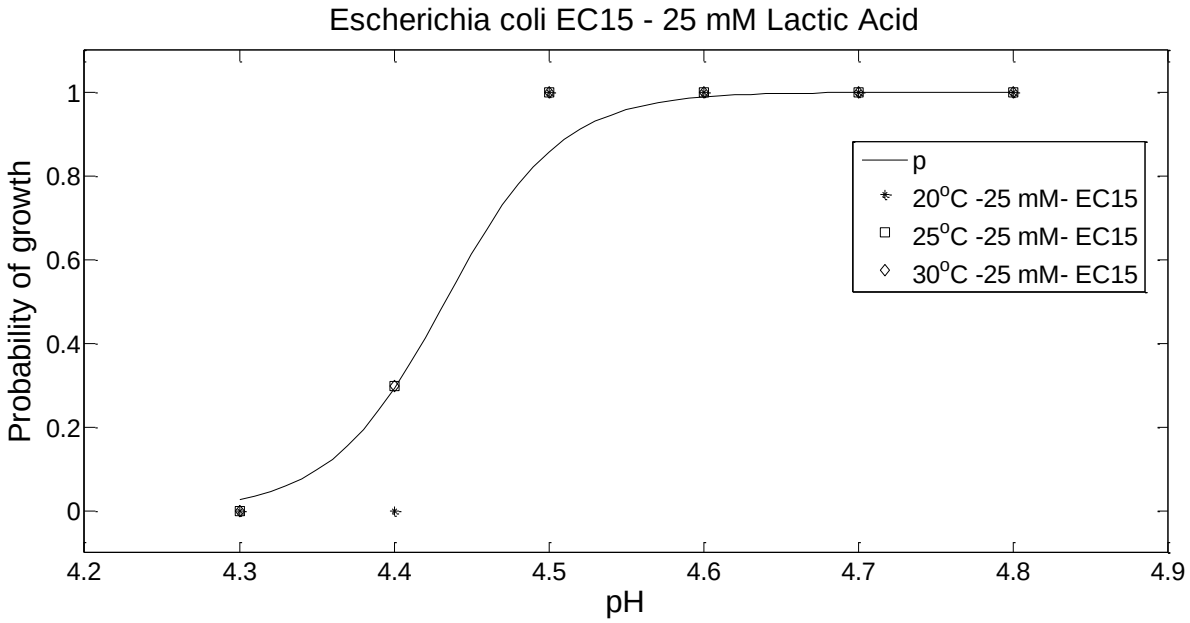
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	160.99	
LA	1	7.14	154	153.85	0.01
pH	1	92.16	153	61.68	0.00

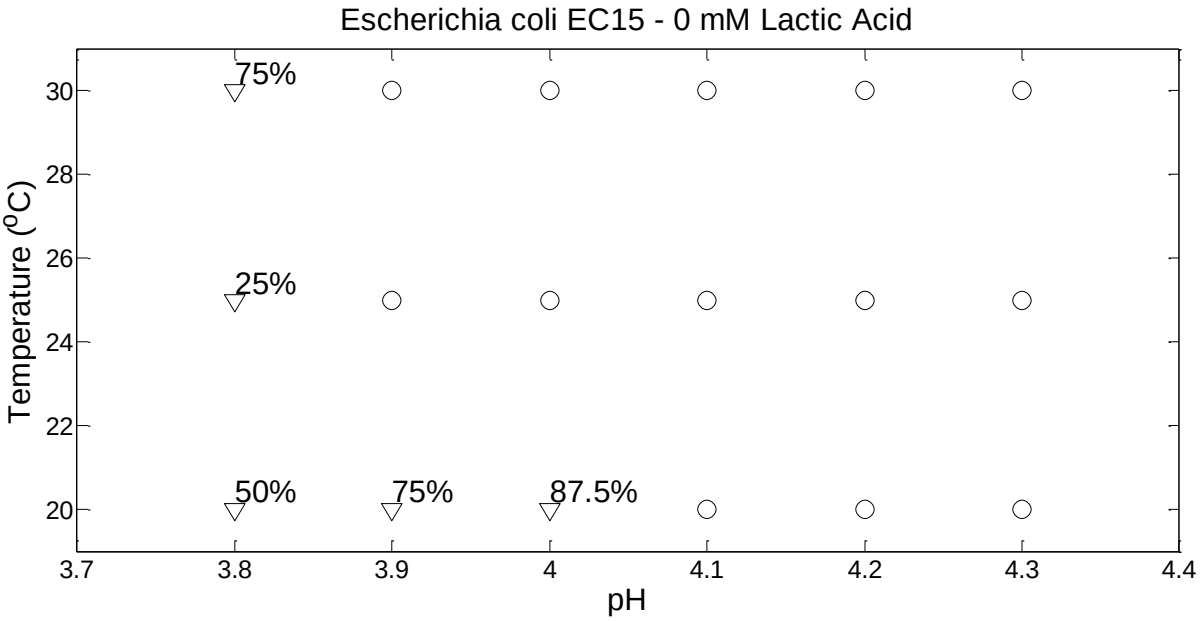
AIC	67.68
Likelihood Ratio	2.73E-22
Log-Likelihood	-30.84

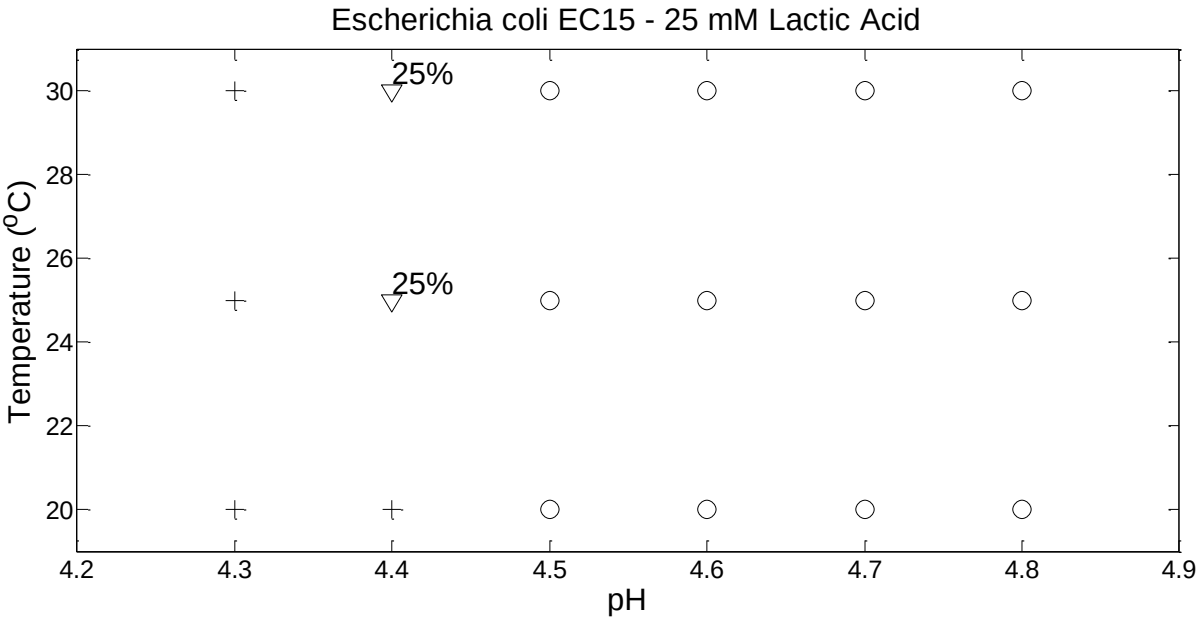





Escherichia coli EC15 - 0 mM Lactic Acid
Probability of growth
pH
p
20°C -0 mM- EC15
25°C -0 mM- EC15
30°C -0 mM- EC15
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC15 - 25 mM Lactic Acid
Probability of growth
pH
p
20°C -25 mM- EC15
25°C -25 mM- EC15
30°C -25 mM- EC15
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC15 - 0 mM Lactic Acid
75%
25%
50%
75%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

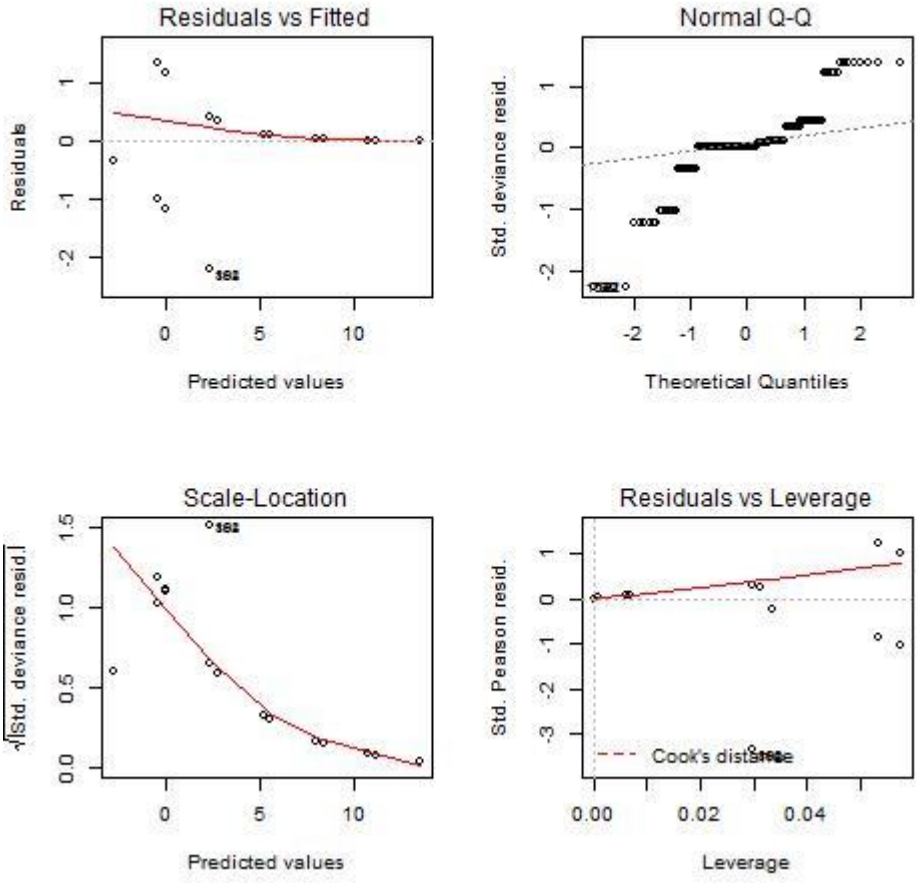

Escherichia coli EC15 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

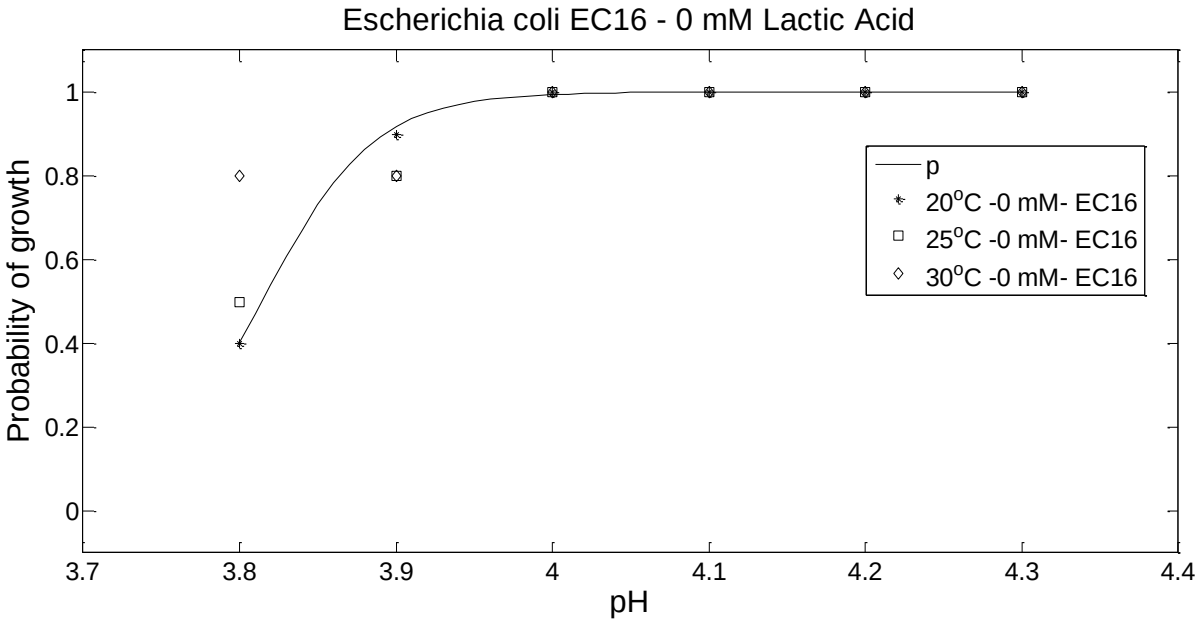
13. *E.coli* EC16 - isolated from compost

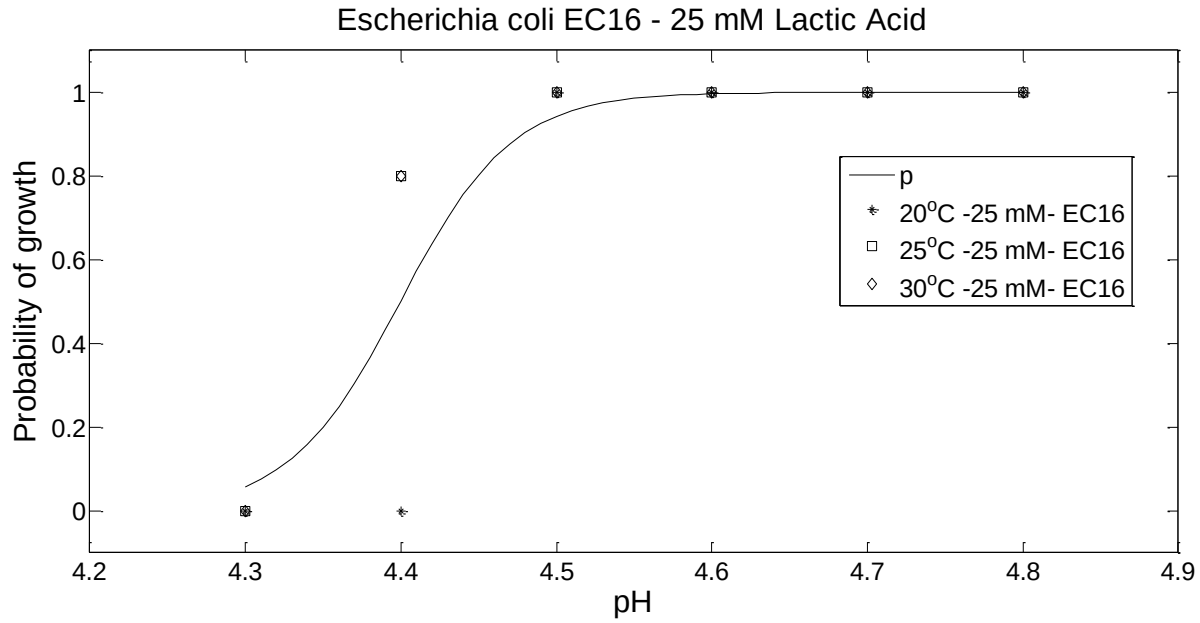
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-106.67	23.17	-4.60	0.00	-161.72	-68.46	0.00	0.00	0.00
pH	27.97	6.05	4.62	0.00	18.01	42.38	1.40E+12	6.61E+07	2.55E+18
LA	-0.65	0.14	-4.63	0.00	-0.99	-0.42	0.52	0.37	0.65

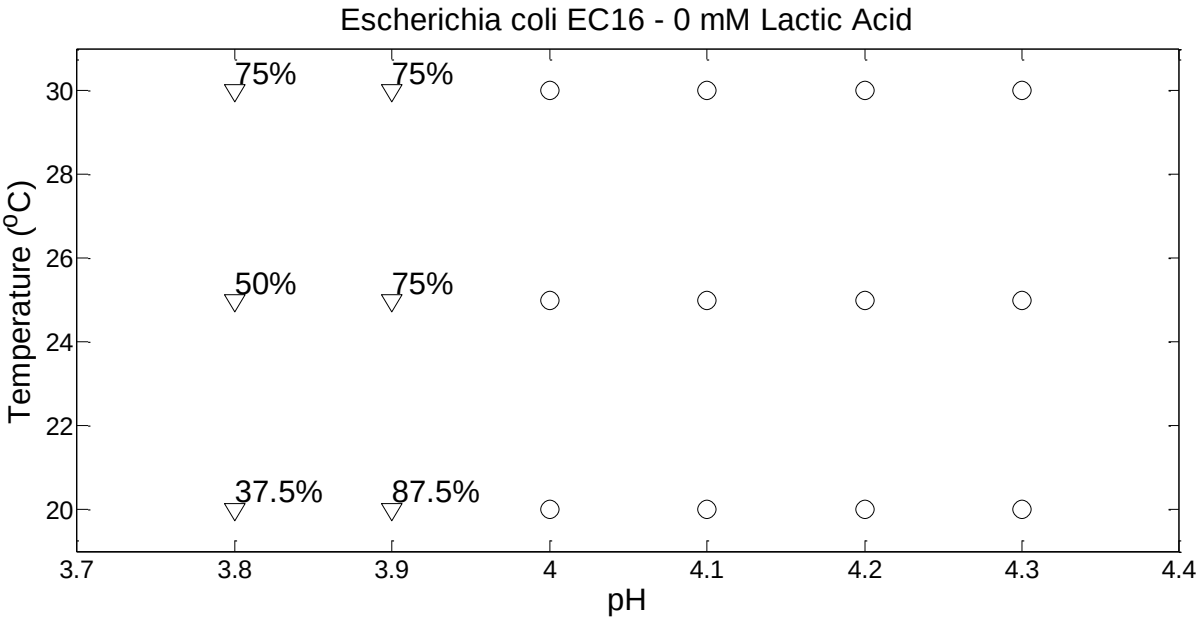
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	149.83	
pH	1	6.25	154	143.58	0.01
LA	1	83.83	153	59.74	0.00

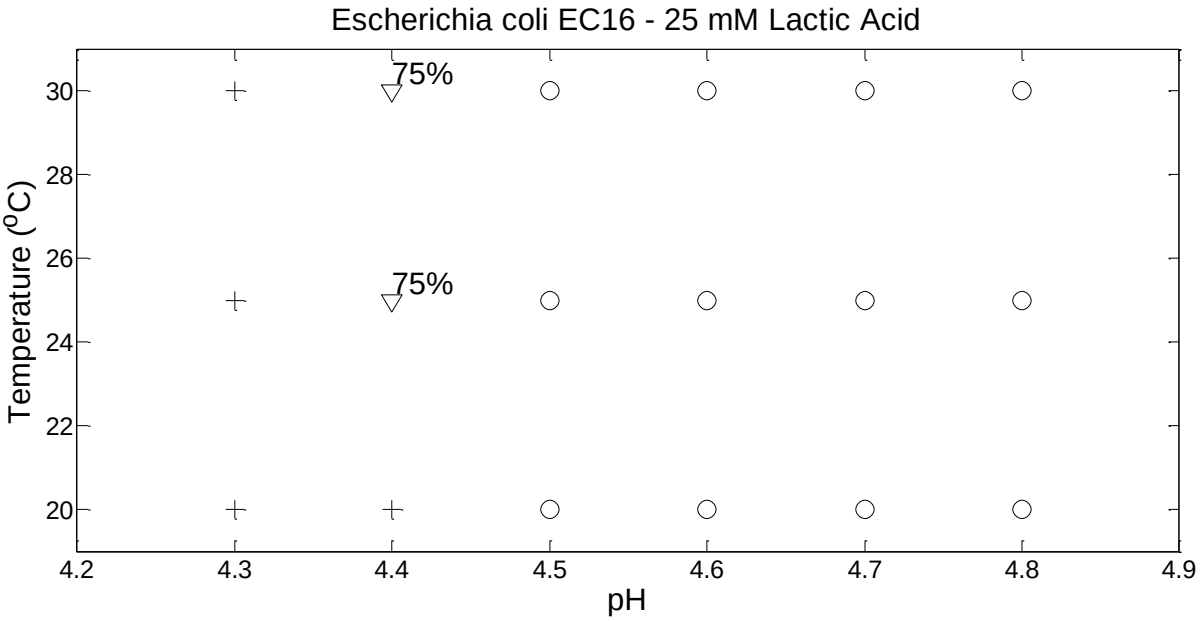
AIC	65.74
Likelihood Ratio	2.74E-20
Log-Likelihood	-29.87




Escherichia coli EC16 - 0 mM Lactic Acid
Probability of growth
pH
p
20°C -0 mM- EC16
25°C -0 mM- EC16
30°C -0 mM- EC16
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC16 - 25 mM Lactic Acid
Probability of growth
pH
p
20°C -25 mM- EC16
25°C -25 mM- EC16
30°C -25 mM- EC16
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC16 - 0 mM Lactic Acid
75%
75%
50%
75%
37.5%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

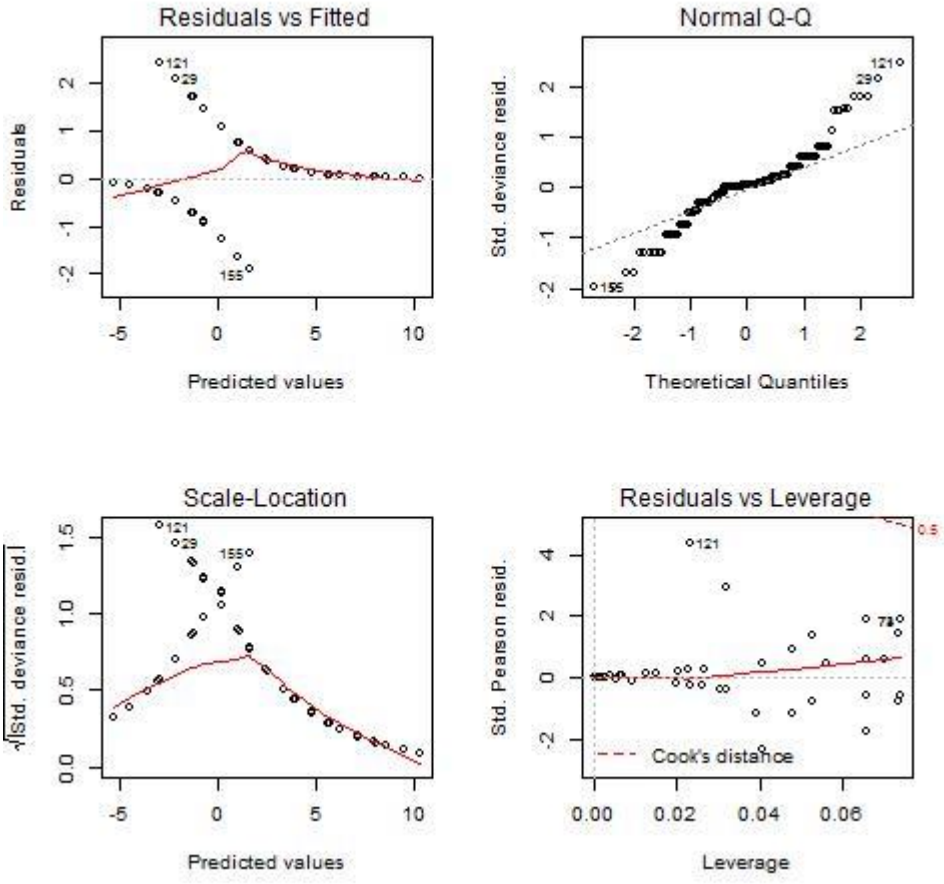

Escherichia coli EC16 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

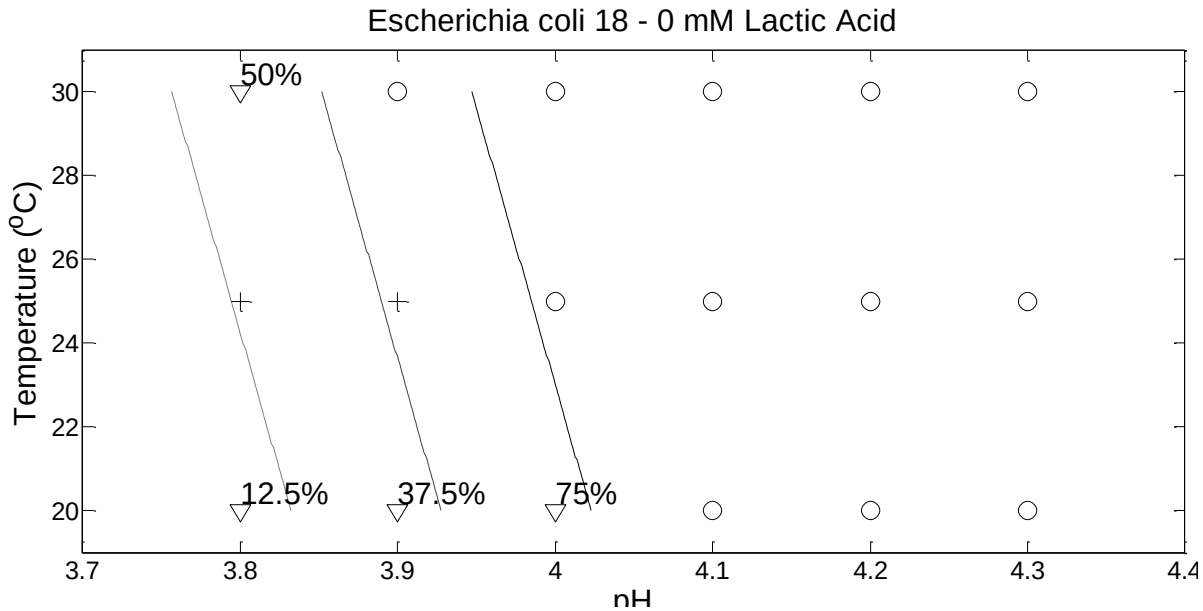
14. *E.coli* EC18 - isolated from compost

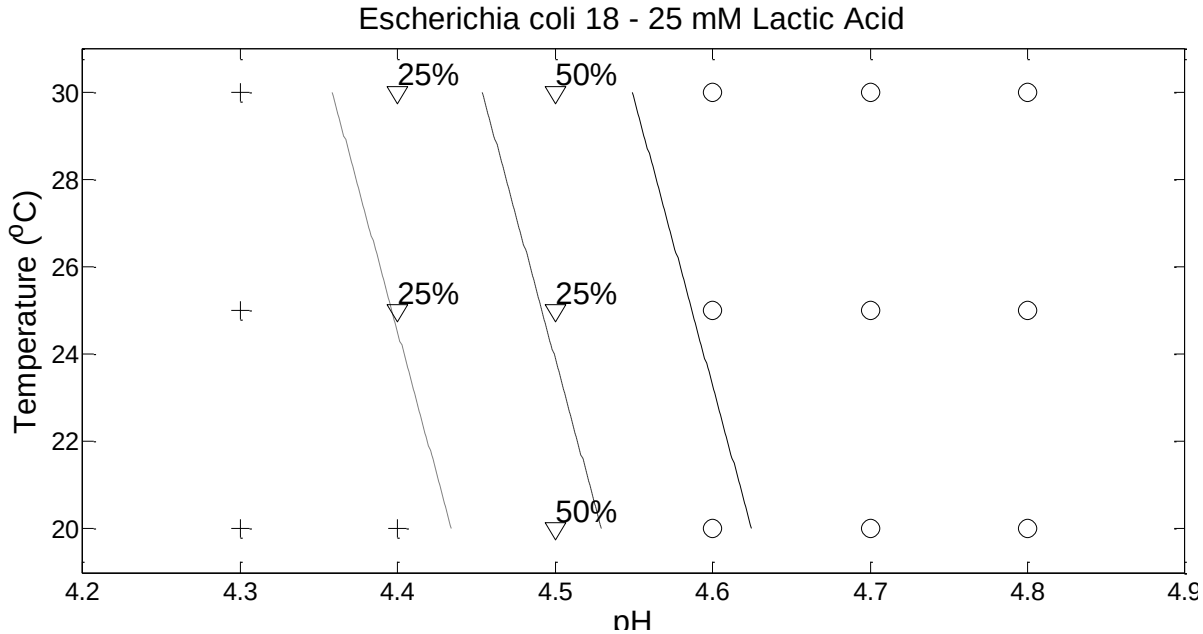
Estimate	Std. Error	z value	Pr(>|z|)	0.025	97.50%	ODD	0.025	97.50%	Estimate
(Intercept)	-94.08	16.44	-5.72	0.00	-131.25	-66.08	0.00	0.00	0.00
pH	23.06	4.03	5.73	0.00	16.20	32.18	1.04E+10	1.09E+07	9.42E+13
Temp	0.17	0.08	2.30	0.02	0.03	0.33	1.19	1.03	1.40
LA	-0.56	0.10	-5.60	0.00	-0.78	-0.39	0.57	0.46	0.68

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	199.95	
pH	1	13.70	154	186.25	0.00
Temp	1	2.16	153	184.08	0.14
LA	1	107.90	152	76.18	0.00

AIC	84.18
Likelihood Ratio	1.19E-26
Log-Likelihood	-38.09




Escherichia coli 18 - 0 mM Lactic Acid
50%
12.5%
37.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

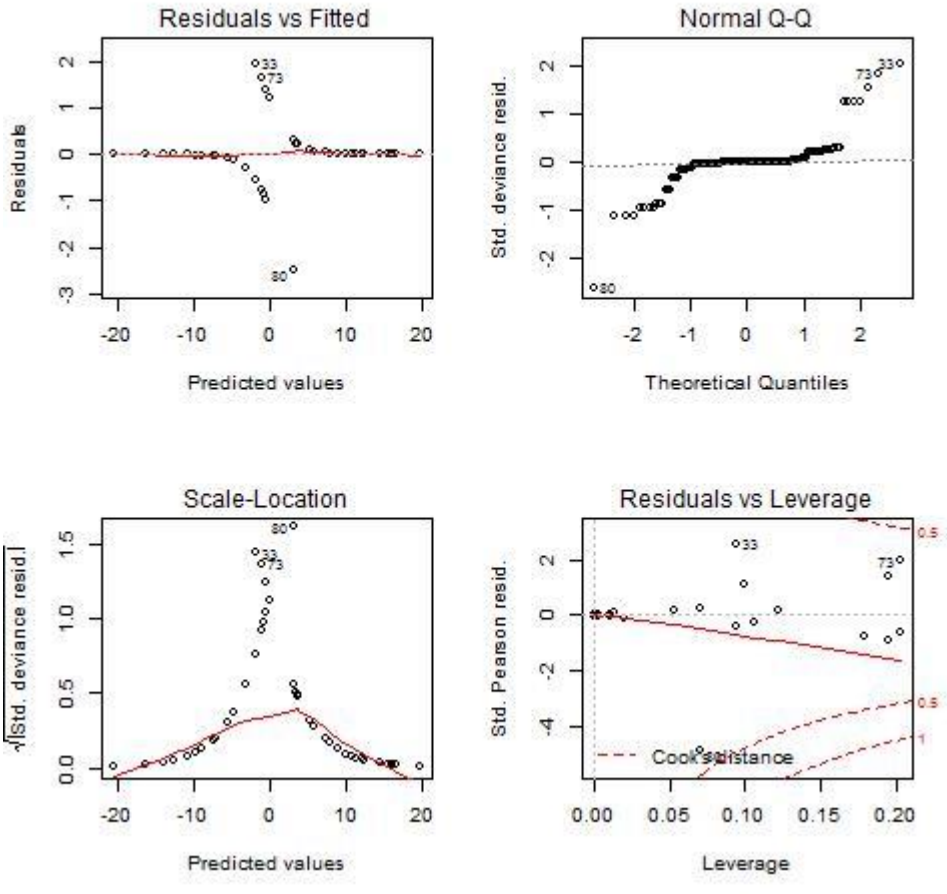

Escherichia coli 18 - 25 mM Lactic Acid
25%
50%
25%
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

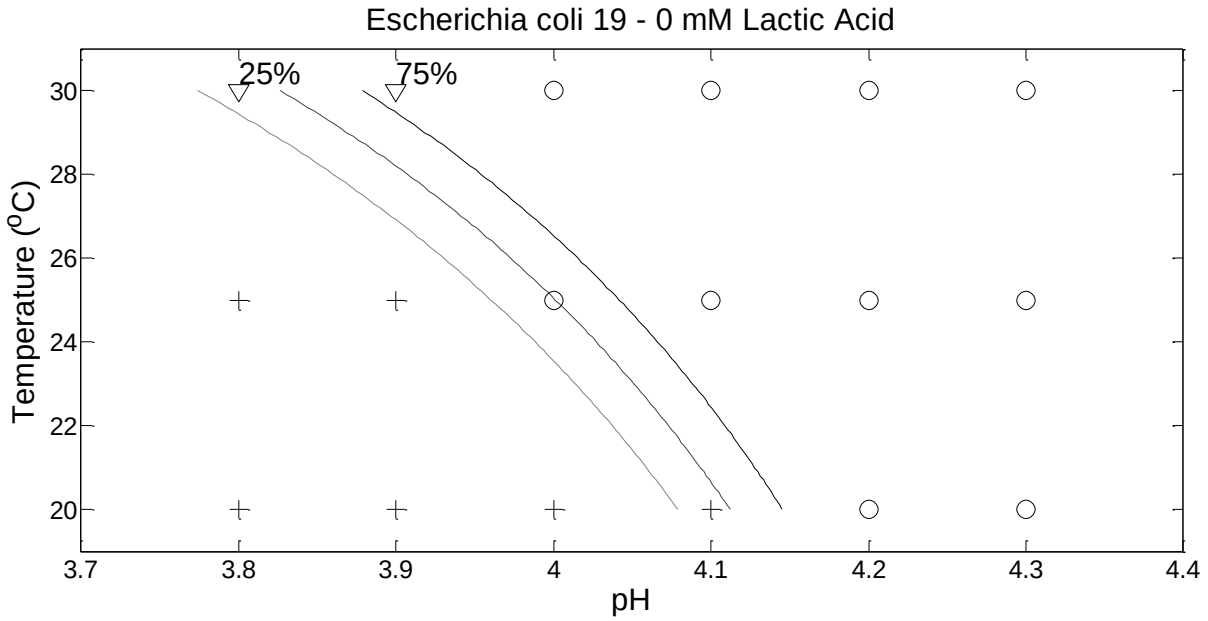
15. *E.coli* EC19 - isolated from stream water

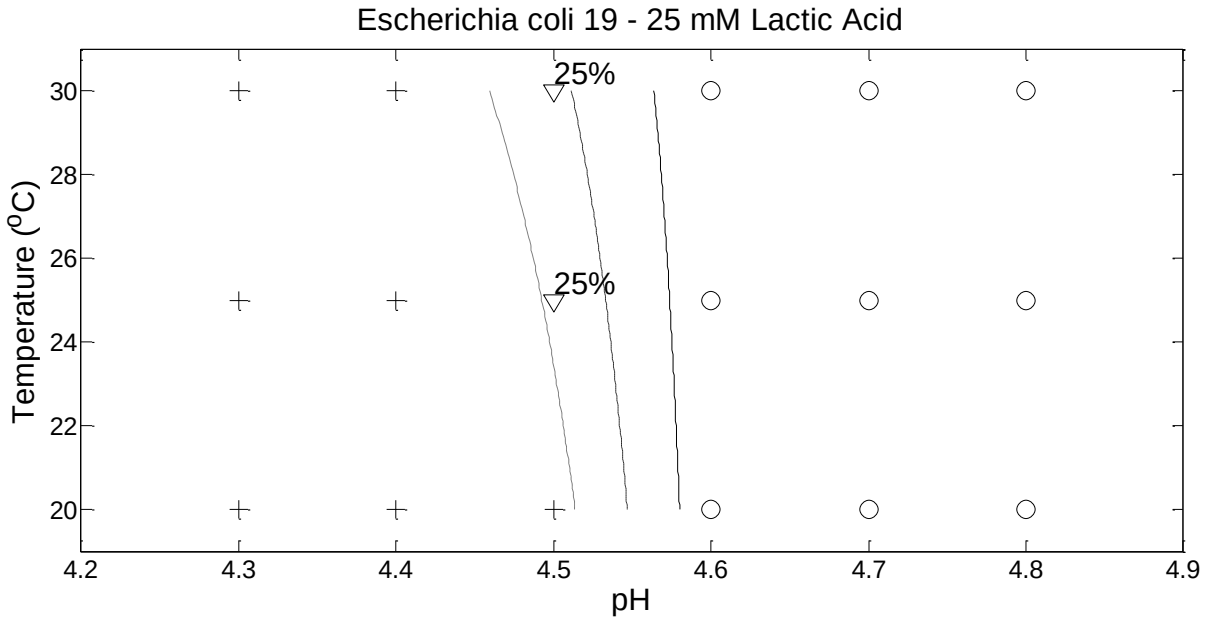
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-495.23	149.36	-3.32	0.00	-966.85	-280.93	0.00	0.00	0.00
pH	114.59	34.77	3.30	0.00	64.83	224.66	5.85E+49	1.42E+28	3.69E+97
Temp	11.15	3.71	3.01	0.00	5.72	22.75	6.96E+04	3.04E+02	7.62E+09
LA	-1.15	0.33	-3.54	0.00	-2.11	-0.68	0.32	0.12	0.51
pH:Temp	-2.42	0.83	-2.92	0.00	-5.01	-1.20	0.09	0.01	0.30

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.85	
pH	1	30.93	154	184.92	0.00
Temp	1	12.37	153	172.55	0.00
LA	1	115.94	152	56.61	0.00
pH:Temp	1	25.99	151	30.62	0.00

AIC	40.62
Likelihood Ratio	5.62E-39
Log-Likelihood	-15.31




Escherichia coli 19 - 0 mM Lactic Acid
25%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

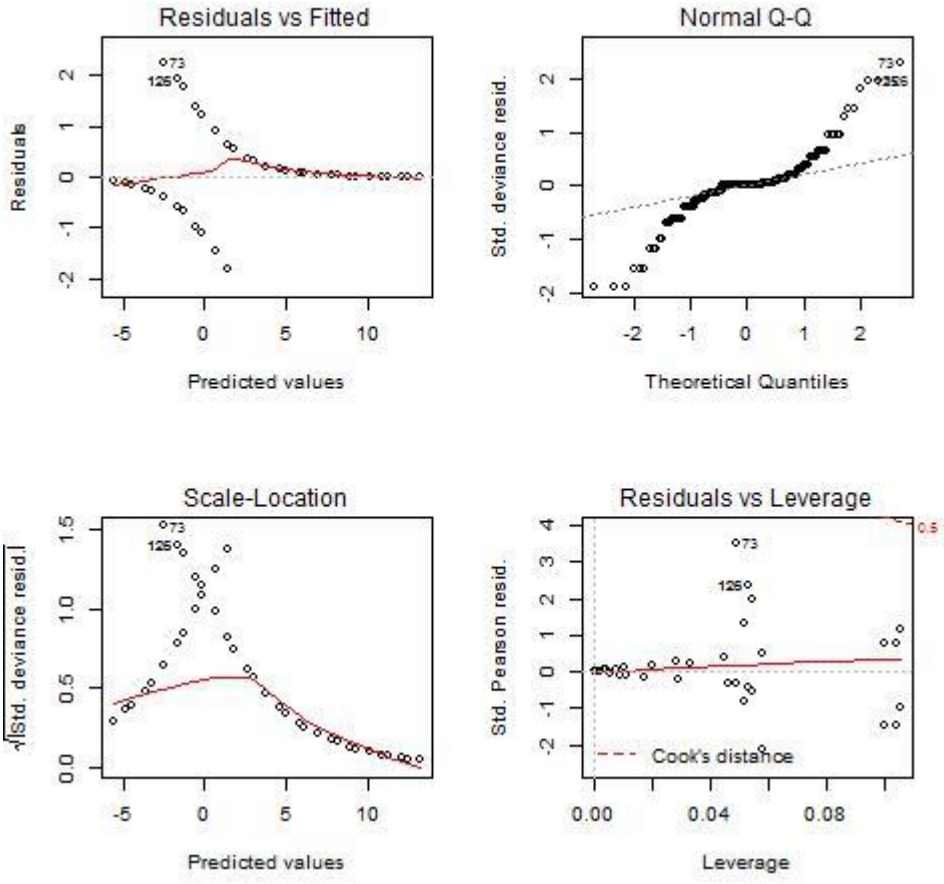

Escherichia coli 19 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

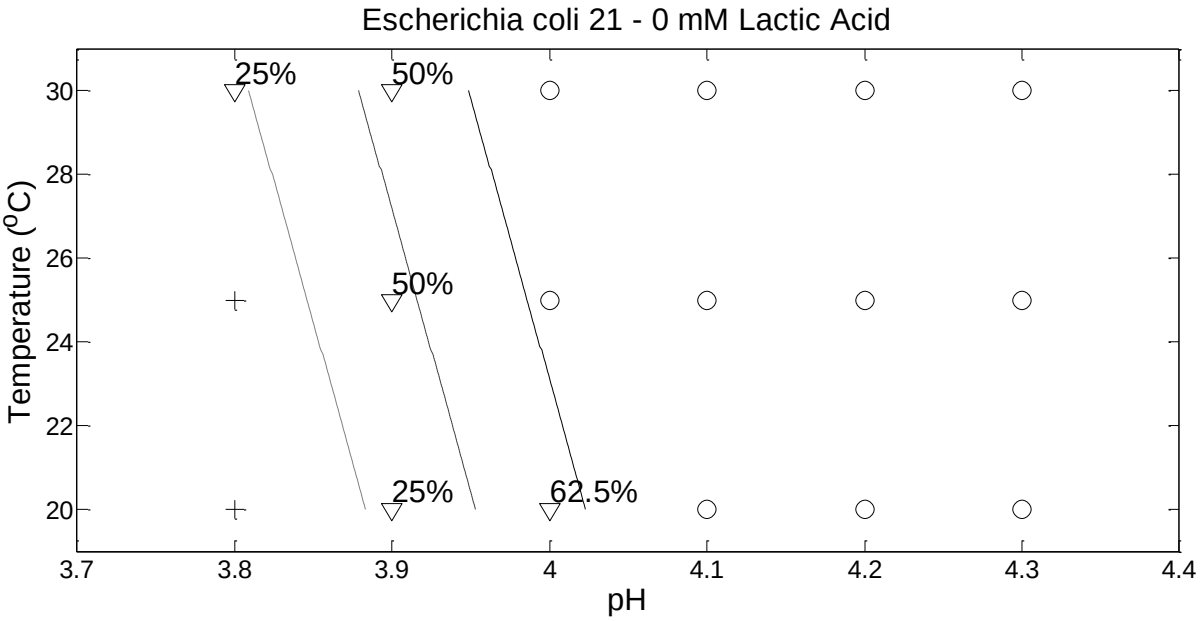
16. *E.coli* EC21 - isolated from stream water

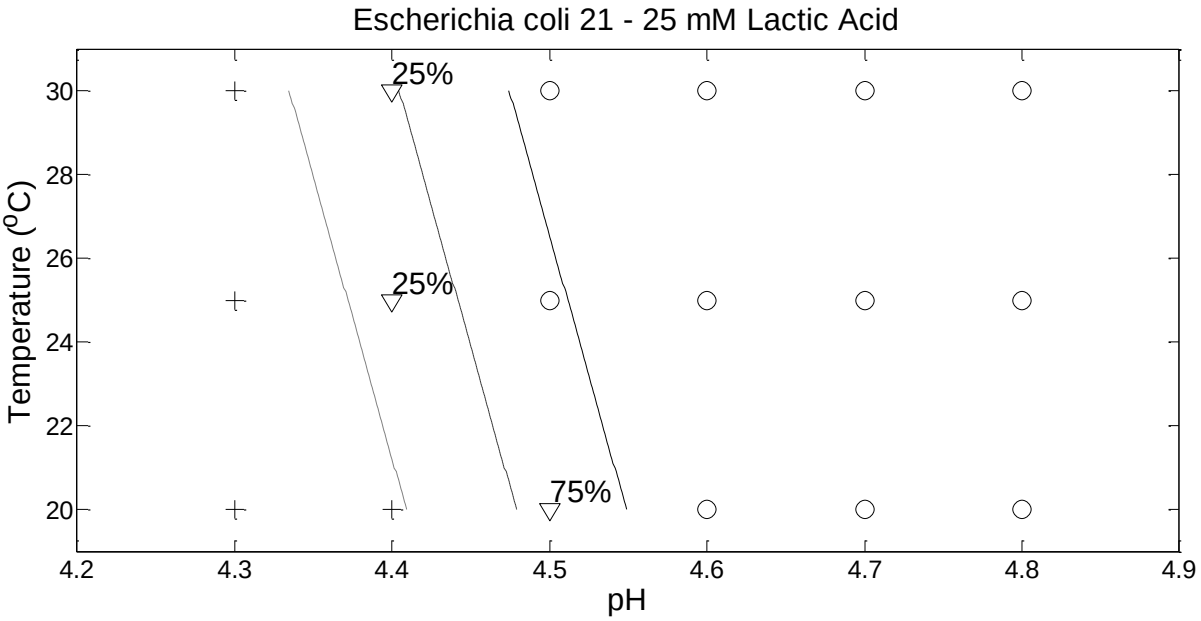
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-129.01	24.75	-5.21	0.00	-186.43	-87.93	0.00	0.00	0.00
pH	31.45	6.02	5.22	0.00	21.45	45.40	4.56E+13	2.06E+09	5.21E+19
Temp	0.23	0.09	2.53	0.01	0.07	0.43	1.26	1.07	1.54
LA	-0.66	0.13	-5.10	0.00	-0.96	-0.45	0.52	0.38	0.64

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	197.18	
pH	1	30.55	154	166.62	0.00
Temp	1	2.54	153	164.08	0.11
LA	1	106.59	152	57.49	0.00

AIC	65.49
Likelihood Ratio	4.41E-30
Log-Likelihood	-28.74




Escherichia coli 21 - 0 mM Lactic Acid
25%
50%
50%
25%
62.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

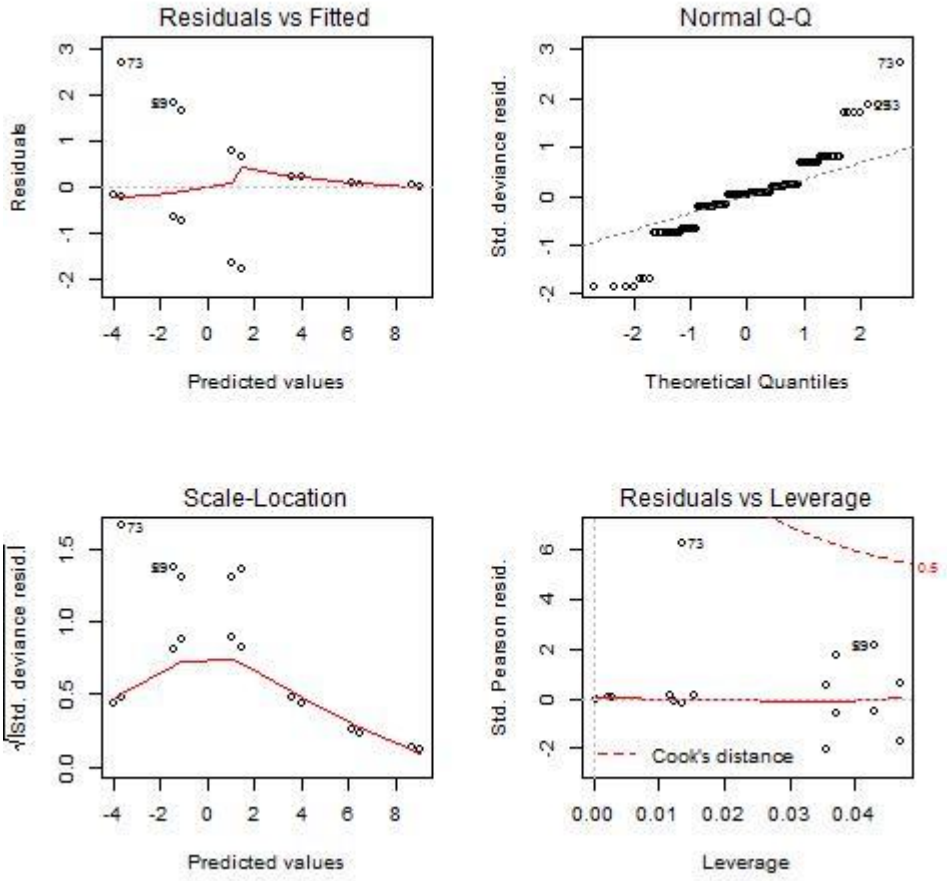

Escherichia coli 21 - 25 mM Lactic Acid
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

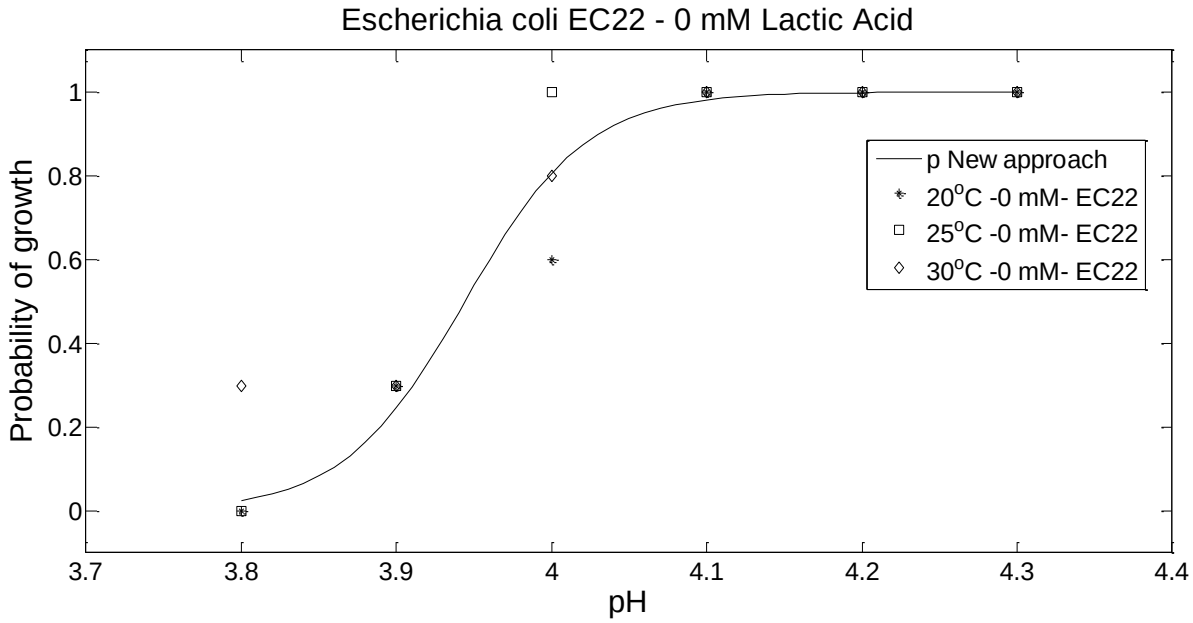
17. *E.coli* EC22 - isolated from stream water

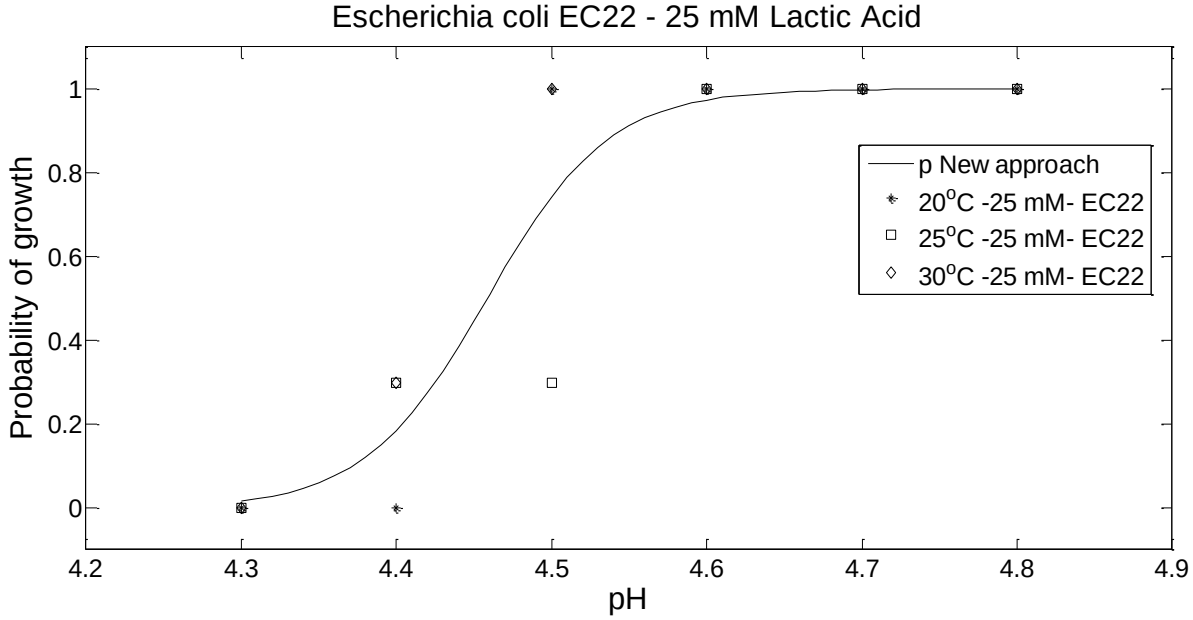
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-100.48	17.40	-5.77	0.00	-139.60	-70.86	0.00	0.00	0.00
pH	25.48	4.41	5.77	0.00	17.97	35.40	1.16E+11	6.37E+07	2.37E+15
LA	-0.52	0.09	-5.54	0.00	-0.74	-0.36	0.59	0.48	0.70

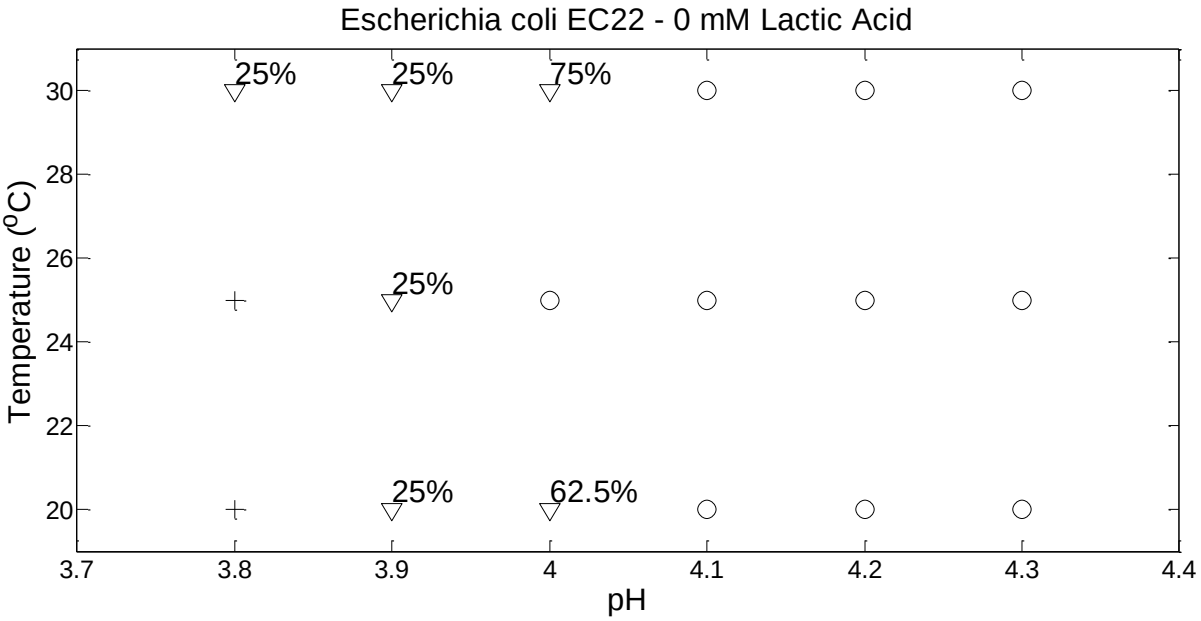
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	203.68	
pH	1	32.58	154	171.10	0.00
LA	1	100.72	153	70.38	0.00

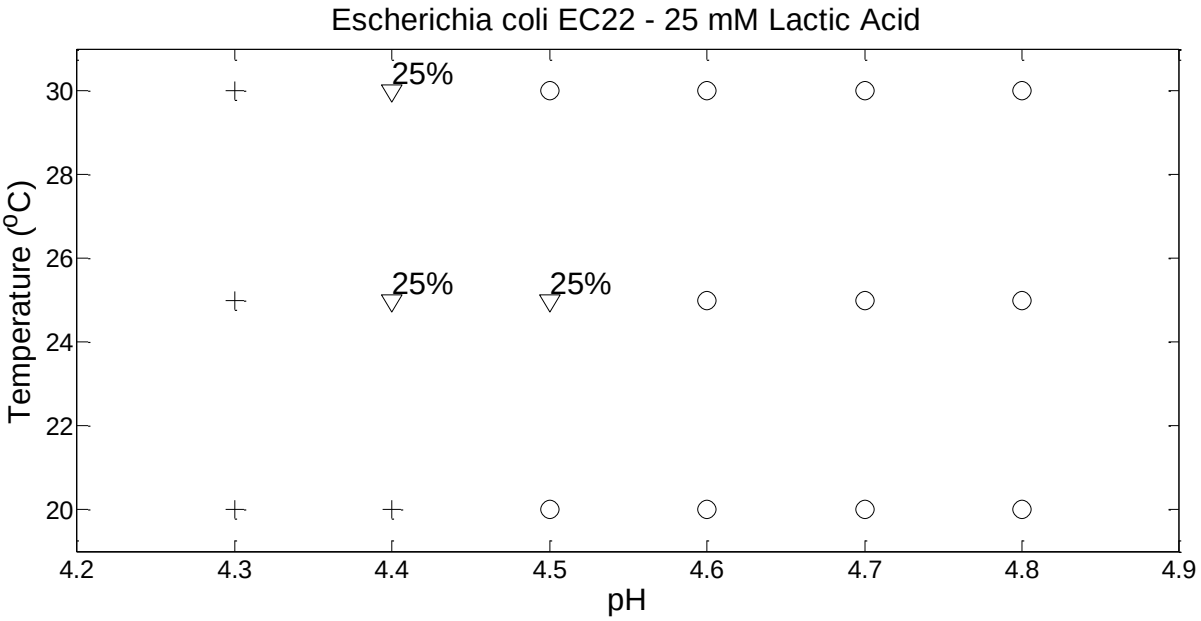
AIC	76.38
Likelihood Ratio	1.13E-29
Log-Likelihood	-35.19




Escherichia coli EC22 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC22
25°C -0 mM- EC22
30°C -0 mM- EC22
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC22 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC22
25°C -25 mM- EC22
30°C -25 mM- EC22
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC22 - 0 mM Lactic Acid
25%
25%
75%
25%
25%
62.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

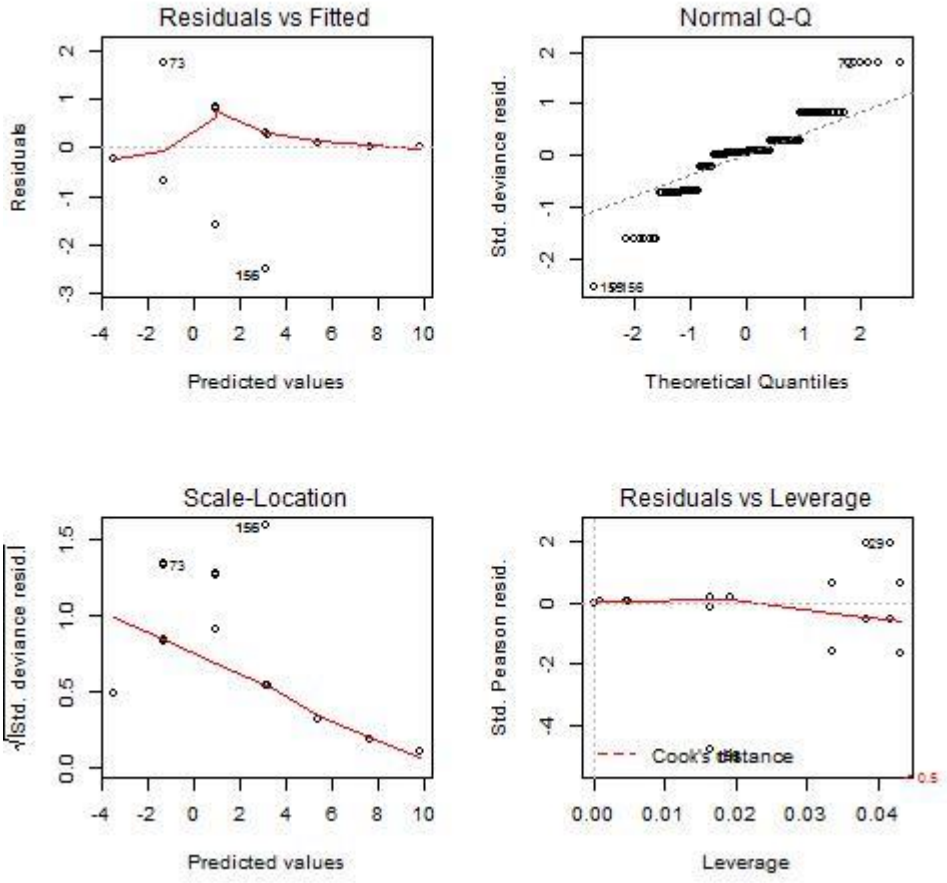

Escherichia coli EC22 - 25 mM Lactic Acid
25%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

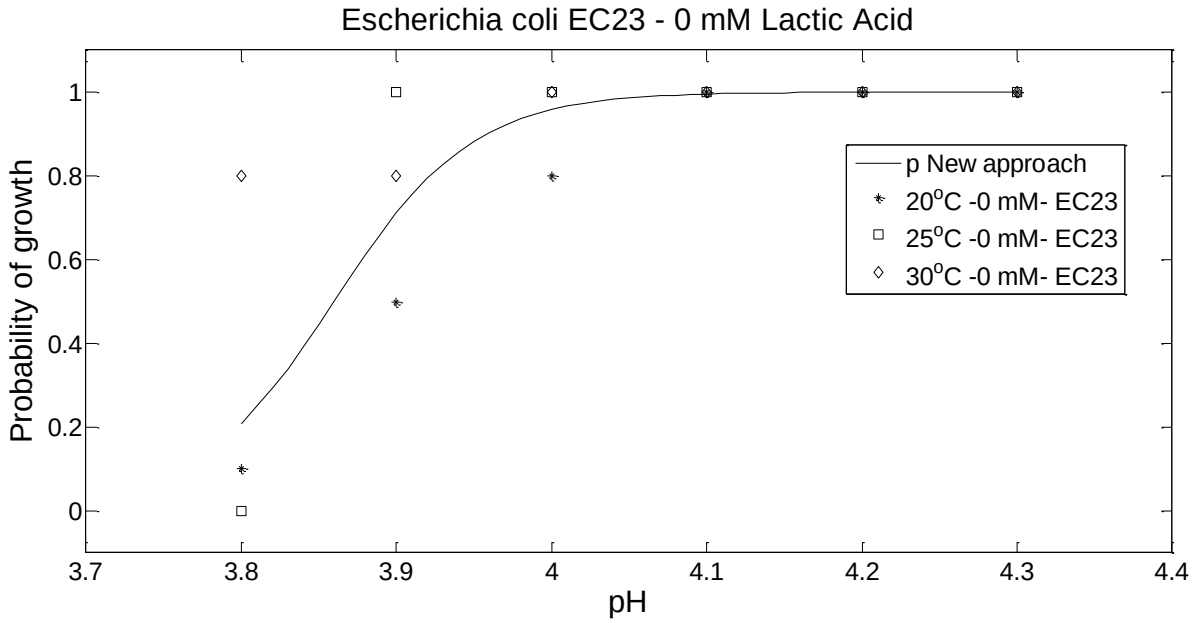
18. *E.coli* EC23 - isolated from chicken meat

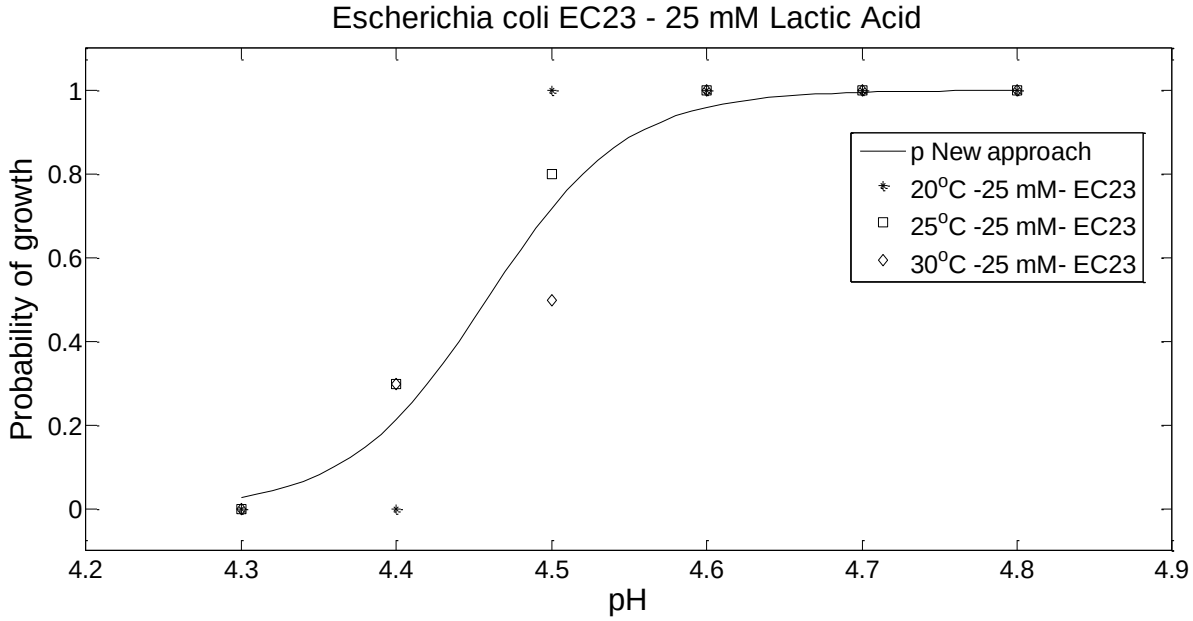
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-86.28	15.46	-5.58	0.00	-120.84	-59.75	0.00	0.00	0.00
pH	22.35	3.99	5.60	0.00	15.51	31.28	5.11E+09	5.46E+06	3.86E+13
LA	-0.54	0.10	-5.53	0.00	-0.75	-0.37	0.59	0.47	0.69

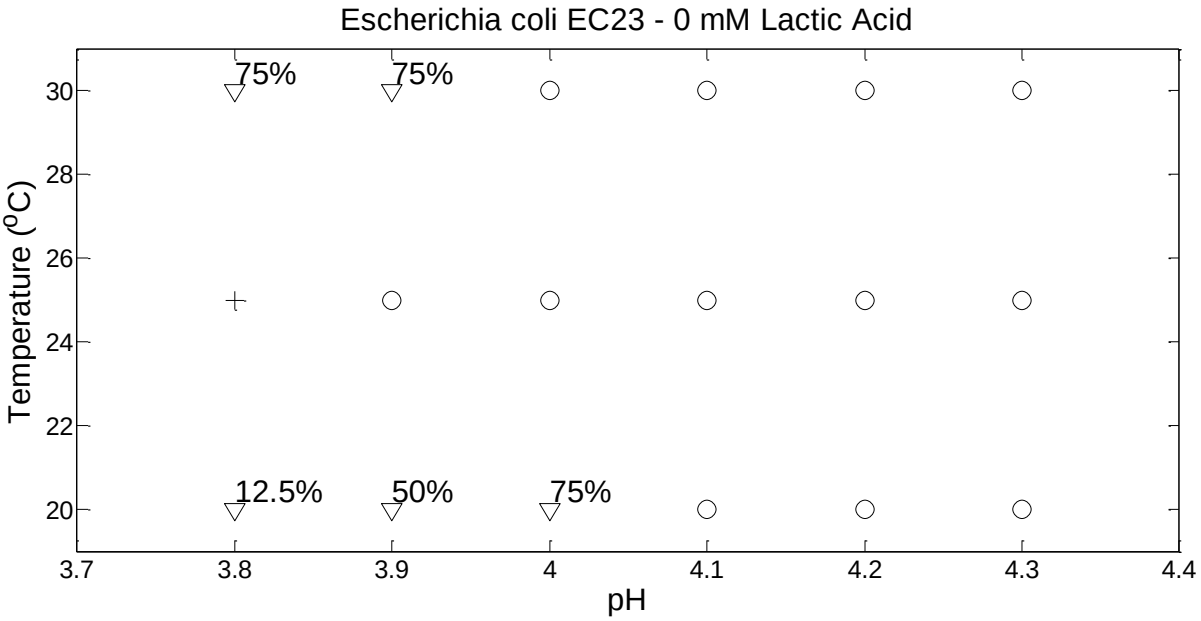
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	183.70	
pH	1	9.60	154	174.11	0.00
LA	1	97.47	153	76.64	0.00

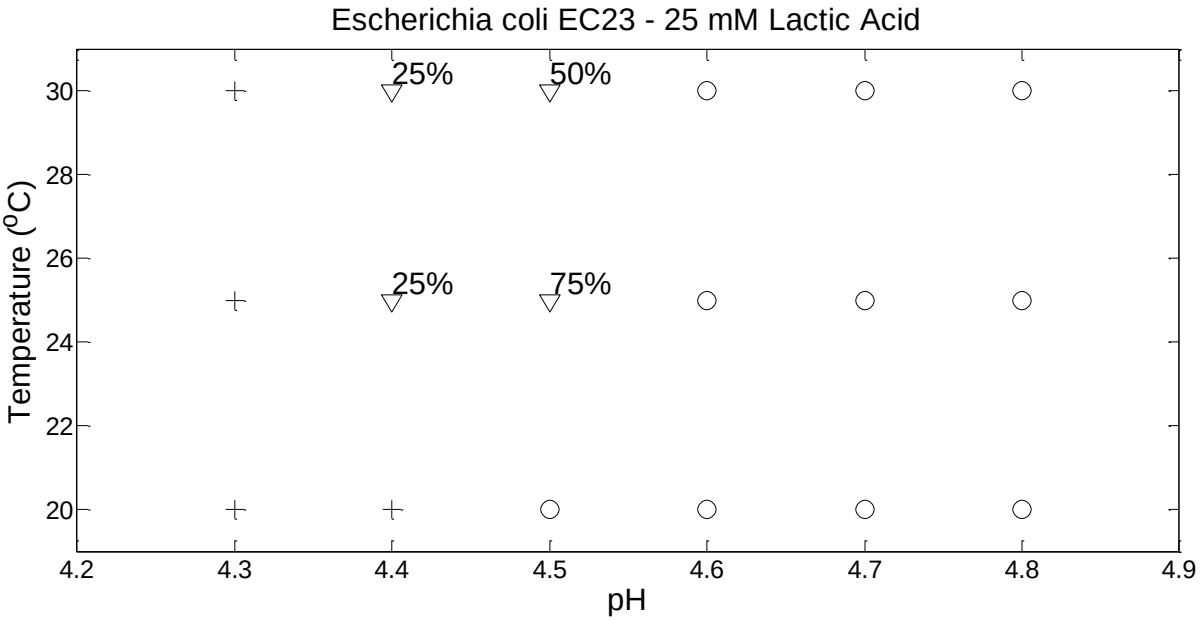
AIC	82.64
Likelihood Ratio	5.64E-24
Log-Likelihood	-38.32




Escherichia coli EC23 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC23
25°C -0 mM- EC23
30°C -0 mM- EC23
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC23 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC23
25°C -25 mM- EC23
30°C -25 mM- EC23
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC23 - 0 mM Lactic Acid
75%
75%
12.5%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

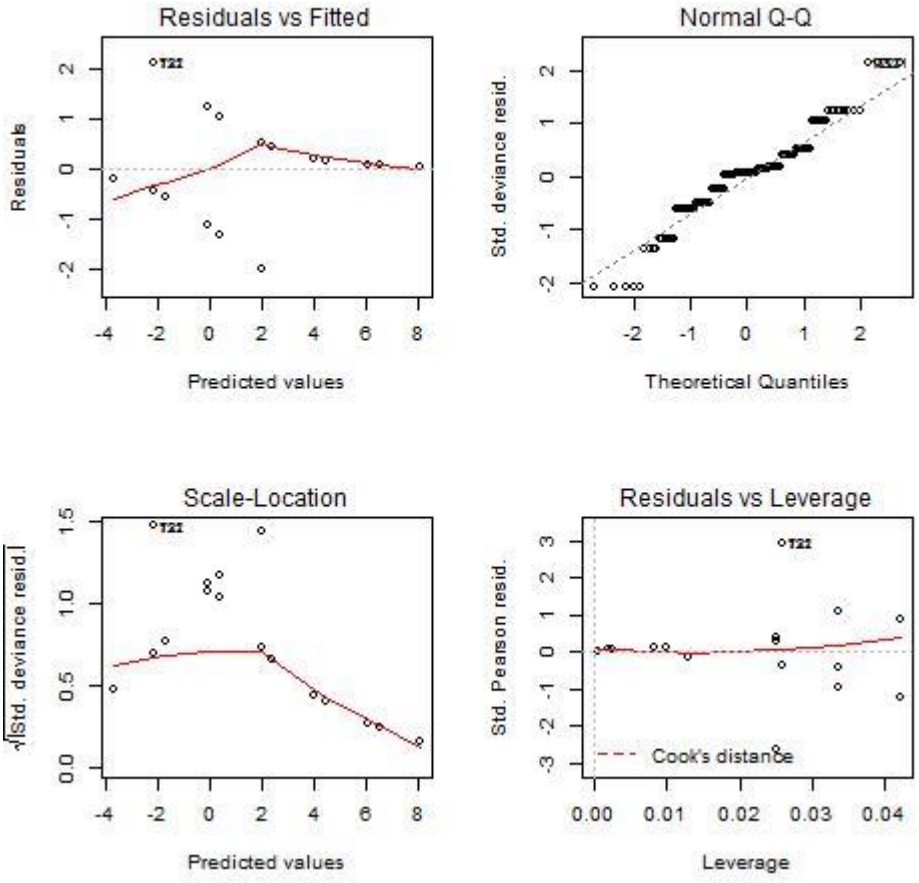

Escherichia coli EC23 - 25 mM Lactic Acid
25%
50%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

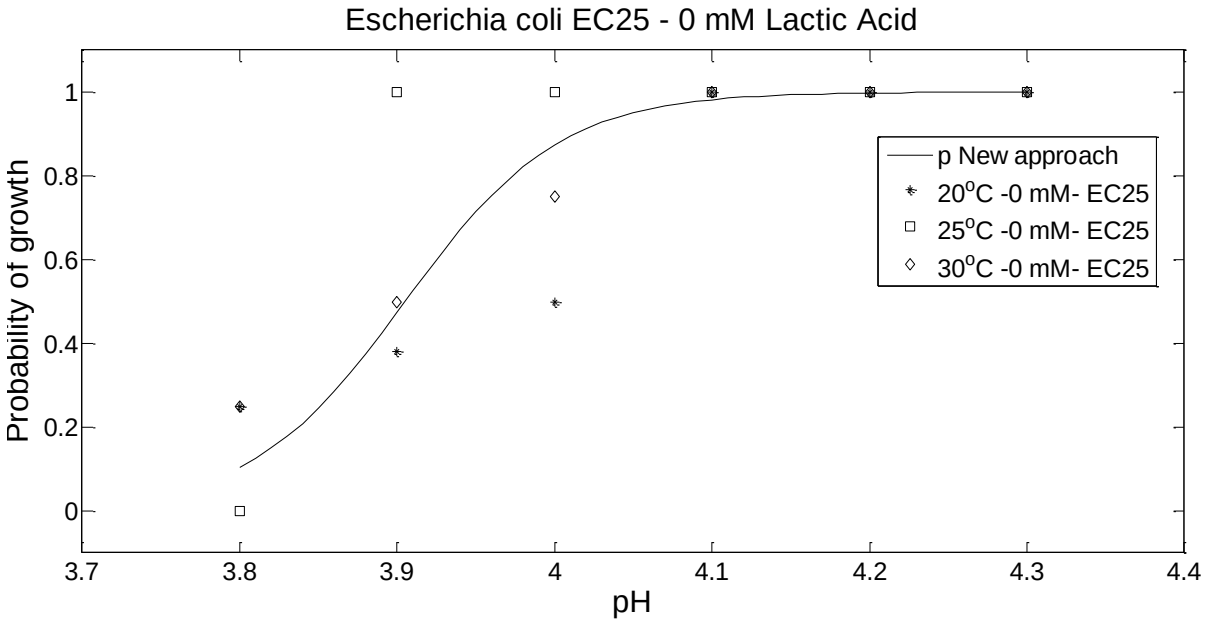
19. *E.coli* EC25 - isolated from mud

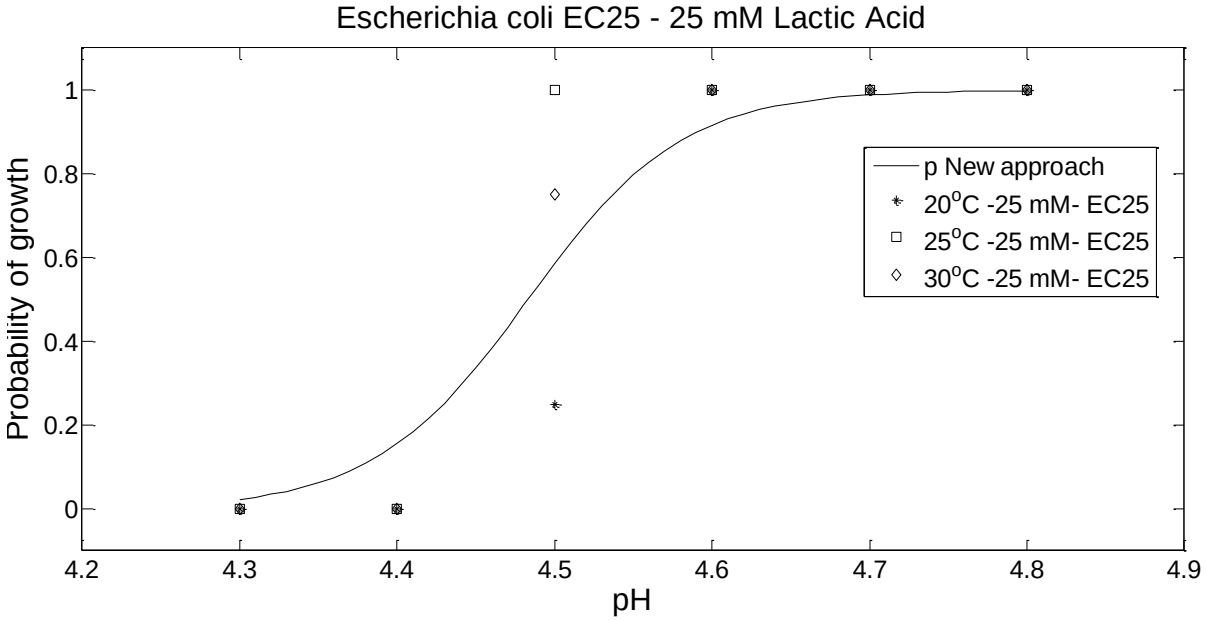
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-79.72	13.38	-5.96	0.00	-109.81	-56.70	0.00	0.00	0.00
pH	20.42	3.42	5.97	0.00	14.53	28.11	7.35E+08	2.05E+06	1.62E+12
LA	-0.47	0.08	-5.78	0.00	-0.66	-0.33	0.62	0.52	0.72

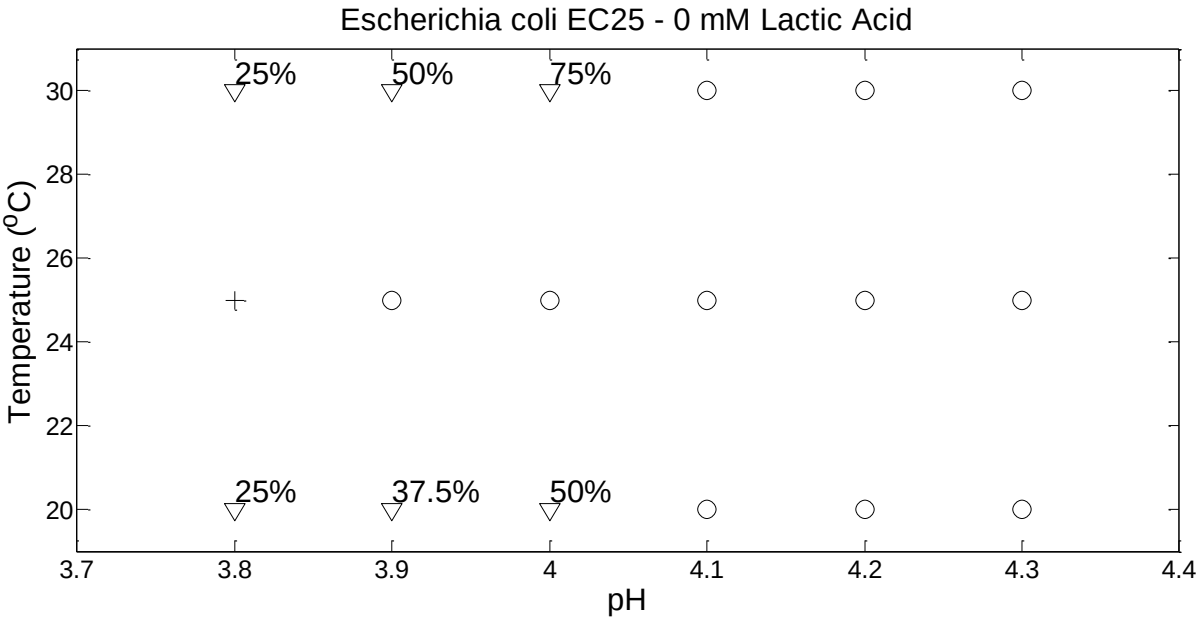
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	199.95	
pH	1	15.93	154	184.02	0.00
LA	1	98.33	153	85.69	0.00

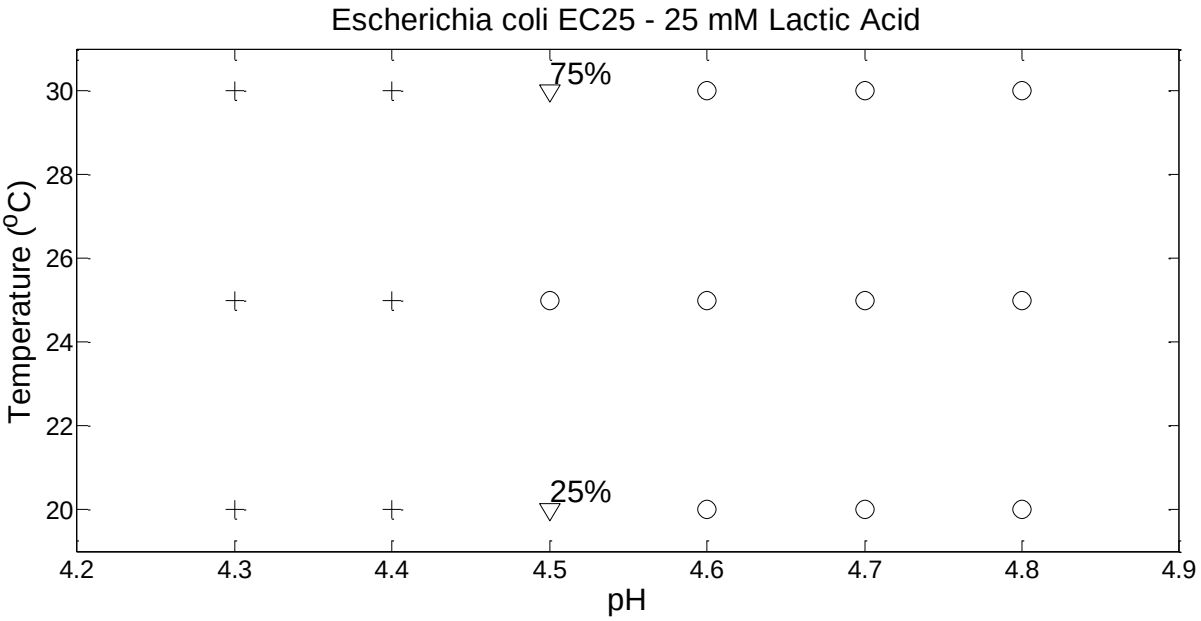
AIC	91.69
Likelihood Ratio	1.54E-25
Log-Likelihood	-42.84




Escherichia coli EC25 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC25
25°C -0 mM- EC25
30°C -0 mM- EC25
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC25 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC25
25°C -25 mM- EC25
30°C -25 mM- EC25
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC25 - 0 mM Lactic Acid
25%
50%
75%
25%
37.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

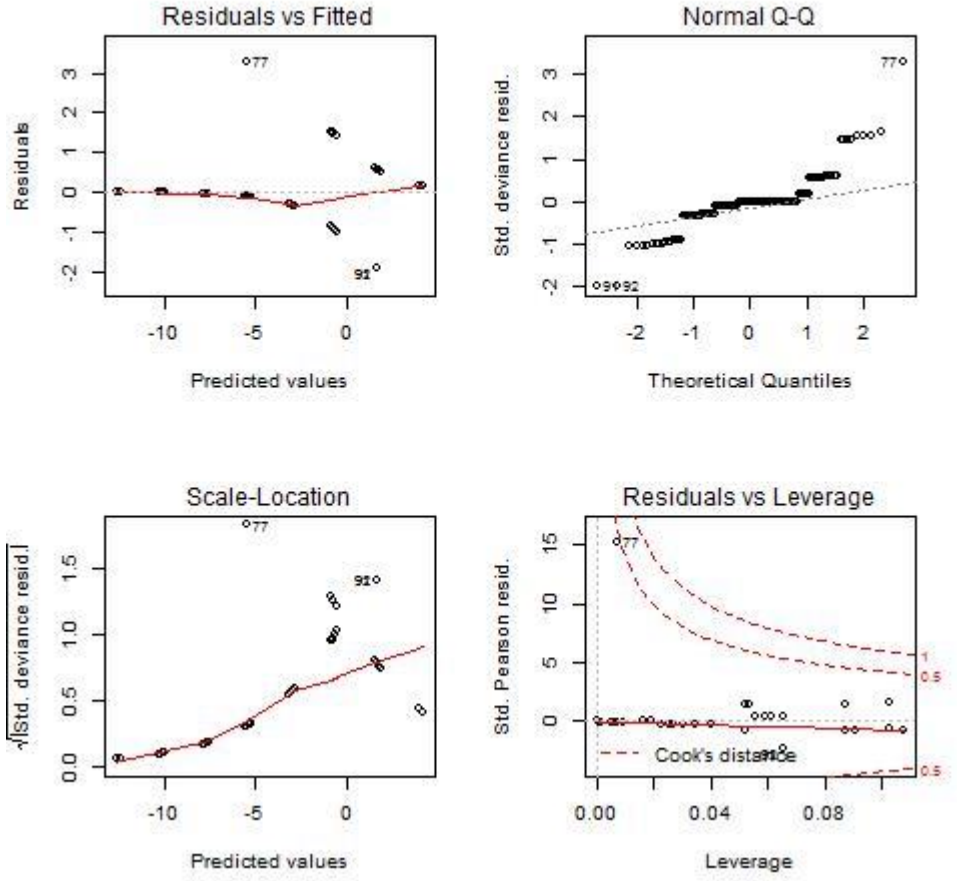

Escherichia coli EC25 - 25 mM Lactic Acid
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

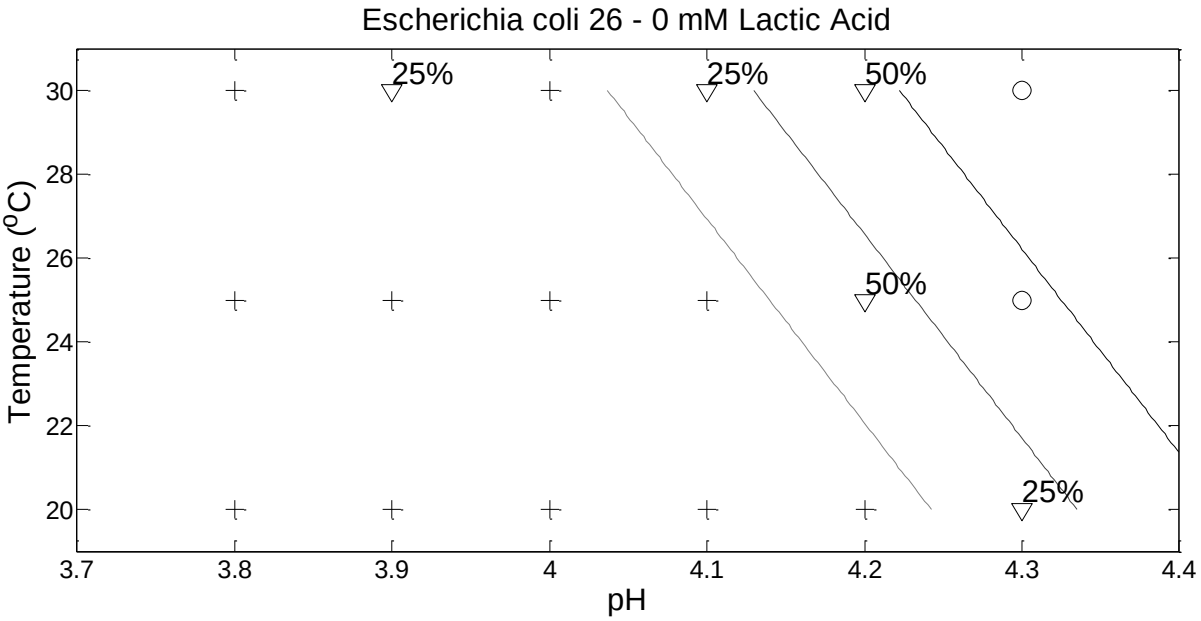
20. *E.coli* EC26 - isolated from soil

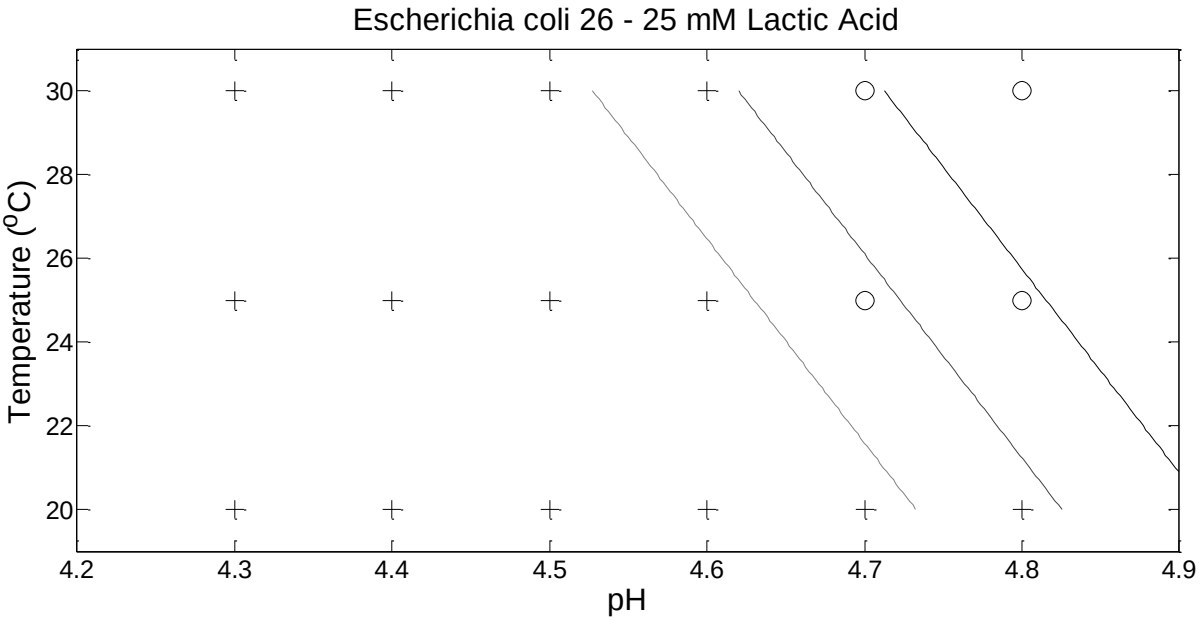
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
Intercept	-112.54	23.75	-4.74	0.00	-168.77	-73.69	0.00	0.00	0.00
pH	23.71	5.12	4.63	0.00	15.30	35.81	1.99E+10	4.43E+06	3.57E+15
LA	-0.47	0.10	-4.45	0.00	-0.71	-0.29	0.63	0.49	0.75
Temp	0.49	0.12	4.08	0.00	0.28	0.76	1.63	1.32	2.13

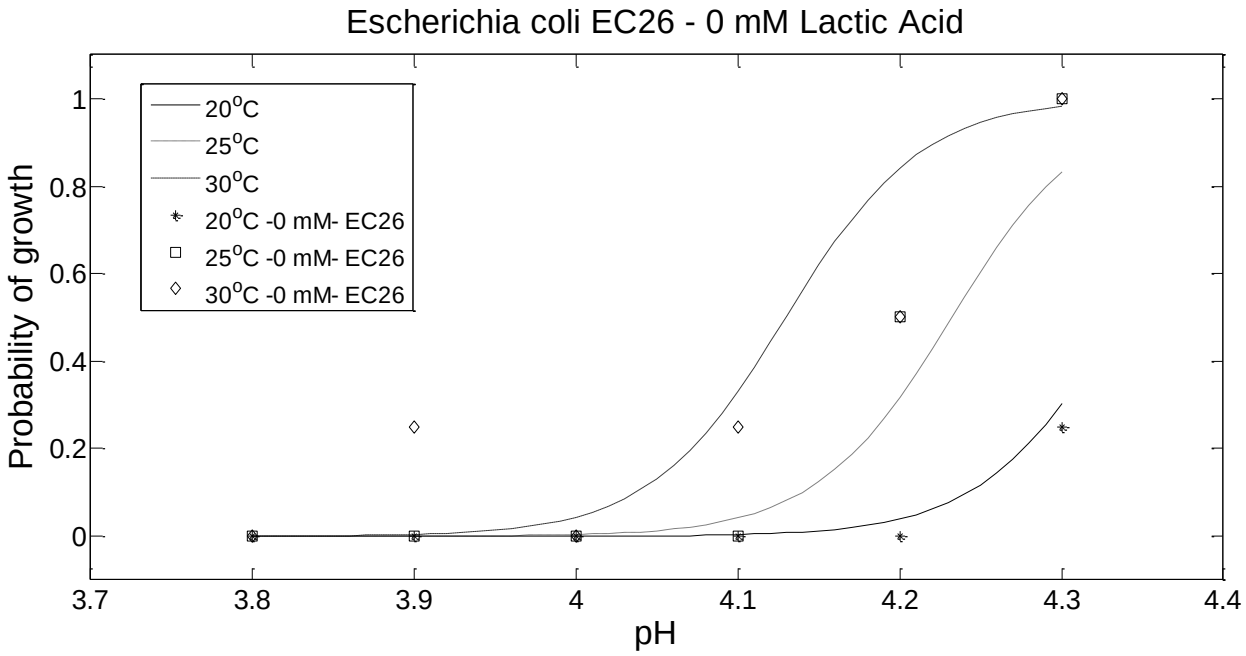
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	155.57	
pH	1	22.61	154	132.96	0.00
LA	1	47.10	153	85.86	0.00
Temp	1	29.71	152	56.15	0.00

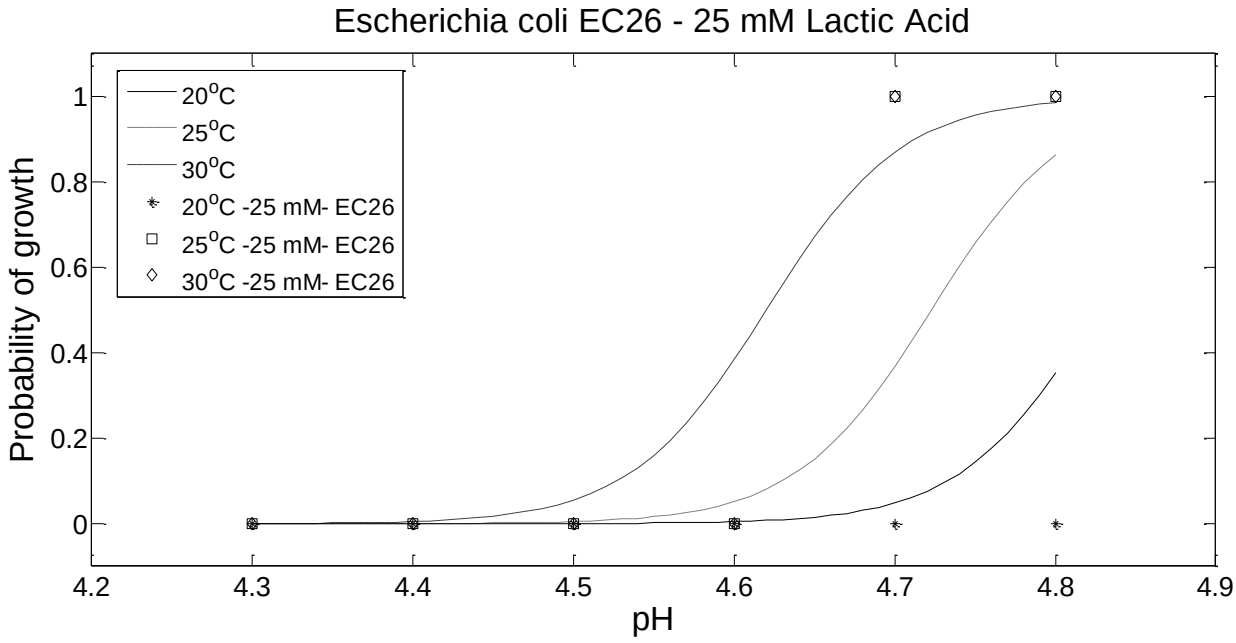
AIC	64.15
Likelihood Ratio	2.08E-21
Log-Likelihood	-28.08




Escherichia coli 26 - 0 mM Lactic Acid
25%
25%
50%
50%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH


Escherichia coli 26 - 25 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH


Escherichia coli EC26 - 0 mM Lactic Acid
20°C
25°C
30°C
20°C -0 mM- EC26
25°C -0 mM- EC26
30°C -0 mM- EC26
Probability of growth
pH
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

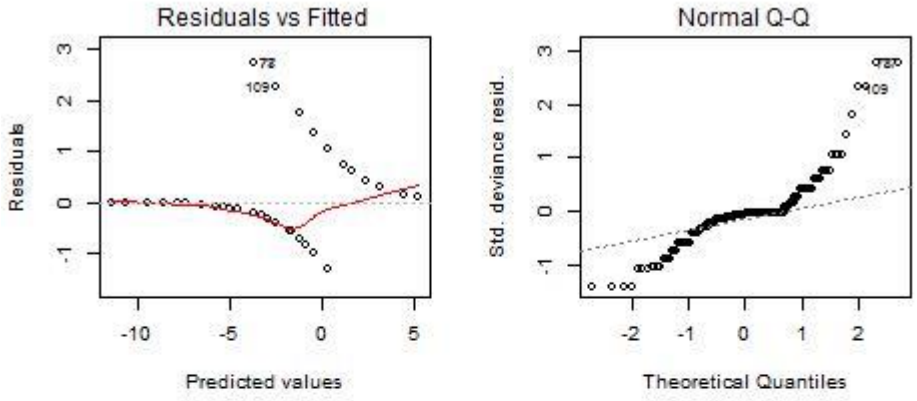

Escherichia coli EC26 - 25 mM Lactic Acid
20°C
25°C
30°C
20°C -25 mM- EC26
25°C -25 mM- EC26
30°C -25 mM- EC26
Probability of growth
pH
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

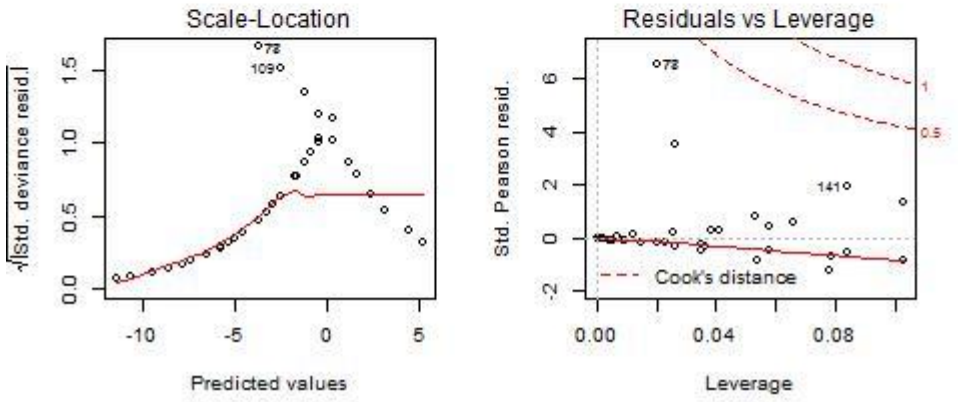
21. *E.coli* EC28 - isolated from soil

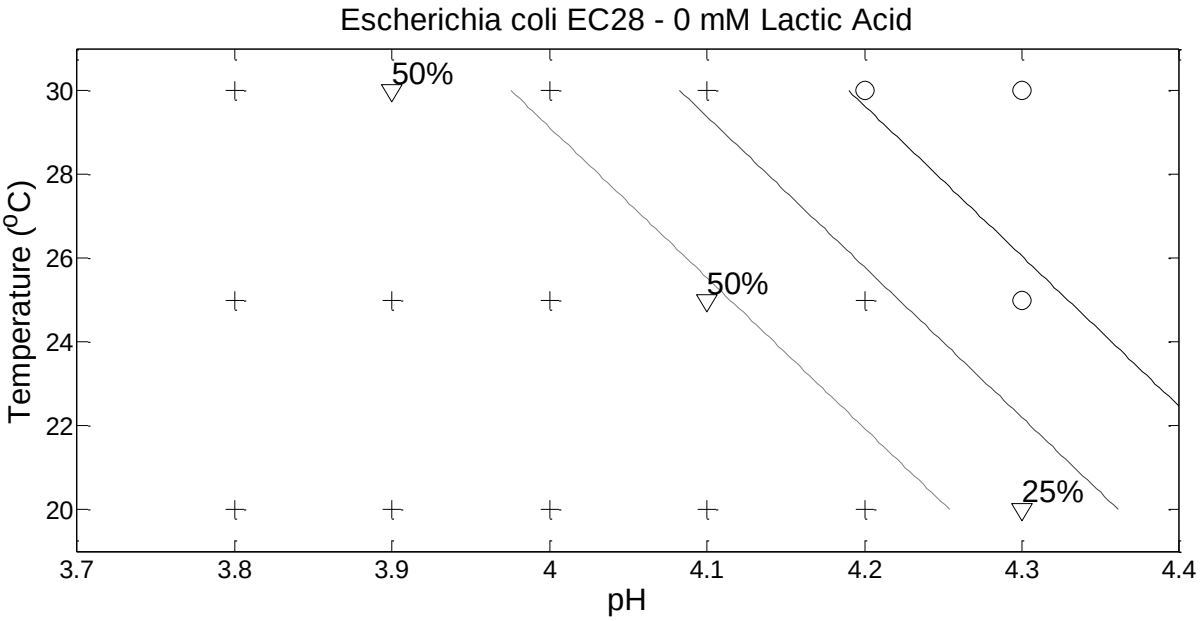
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-100.81	19.63	-5.14	0.00	-146.38	-68.14	0.00	0.00	0.00
pH	20.50	4.11	4.99	0.00	13.63	30.03	8.00E+08	8.31E+05	1.10E+13
Temp	0.57	0.12	4.64	0.00	0.36	0.85	1.77	1.43	2.33
LA	-0.38	0.08	-4.64	0.00	-0.56	-0.24	0.69	0.57	0.79

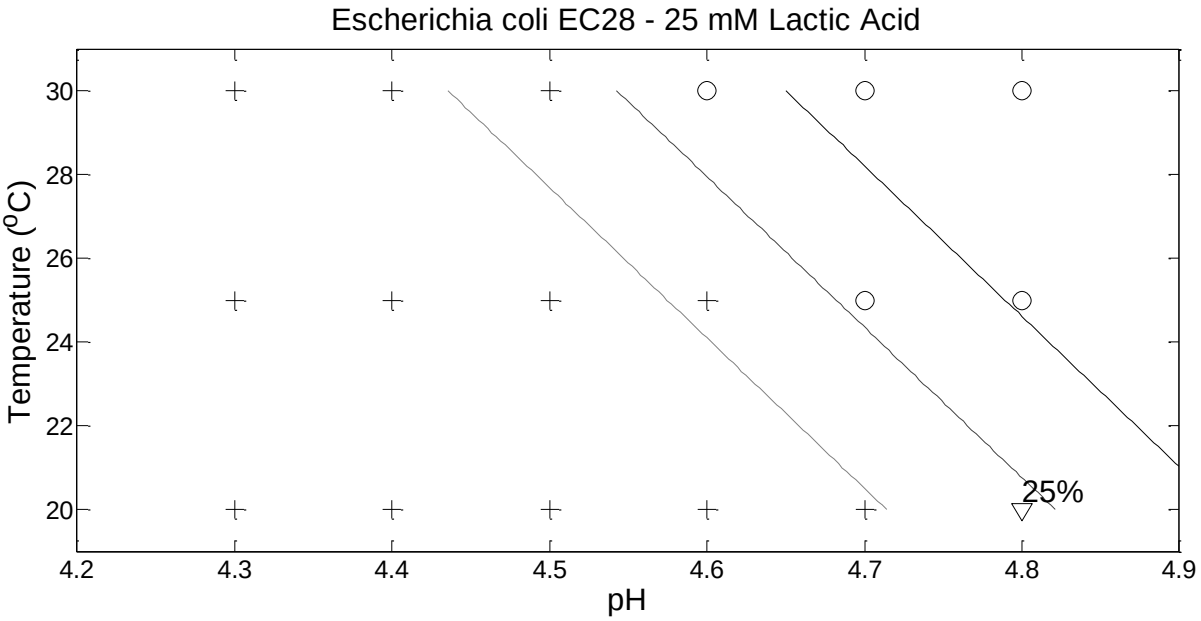
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	173.22	
pH	1	27.54	154	145.68	0.00
Temp	1	29.28	153	116.40	0.00
LA	1	53.15	152	63.25	0.00

AIC	71.25
Likelihood Ratio	1.11E-23
Log-Likelihood	-31.62






Escherichia coli EC28 - 0 mM Lactic Acid
50%
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

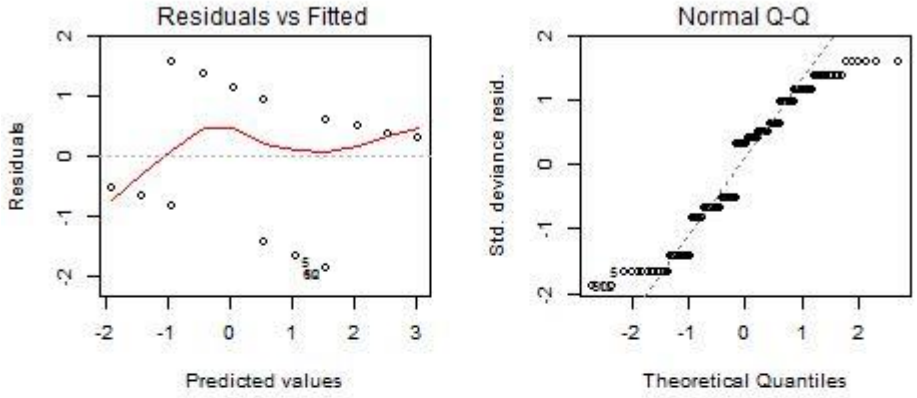

Escherichia coli EC28 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

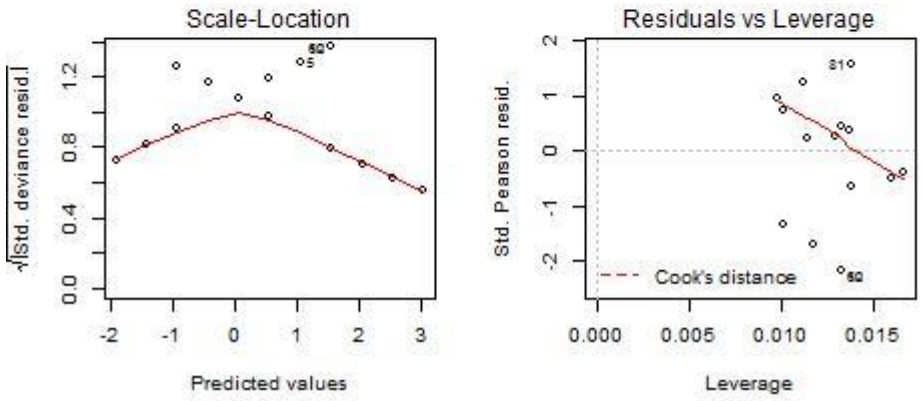
22. *E.coli* EC30 - isolated from sewerage system

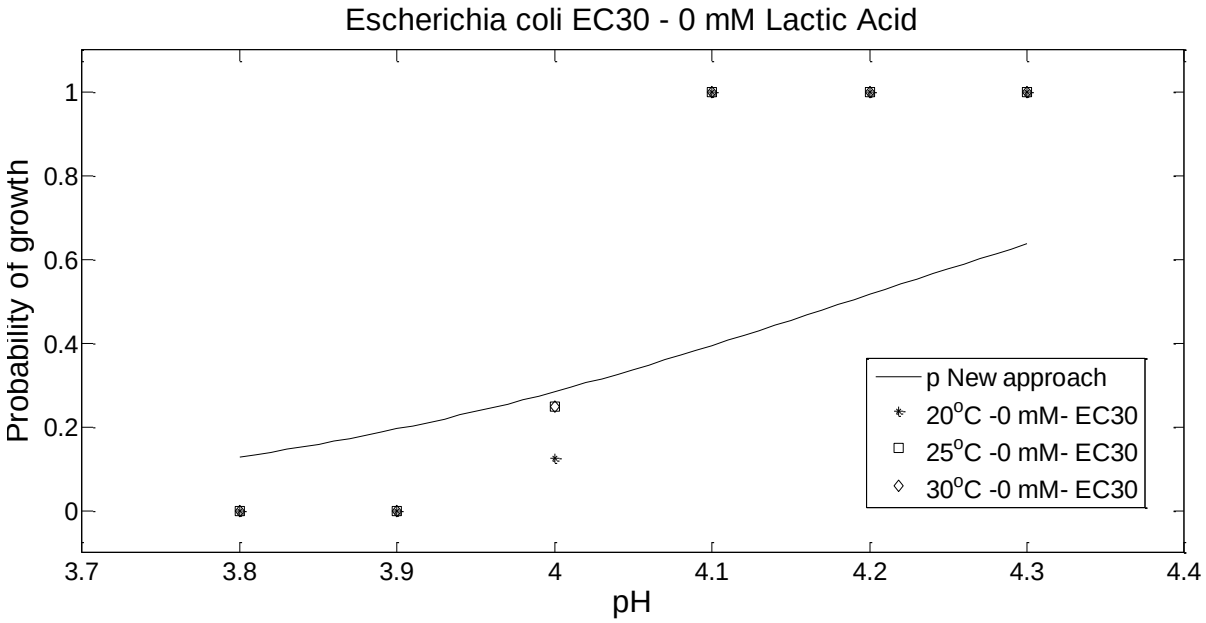
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-20.66	3.38	-6.12	0.00	-27.78	-14.46	0.00	0.00	0.00
pH	4.94	0.80	6.17	0.00	3.47	6.62	139.20	32.12	753.12

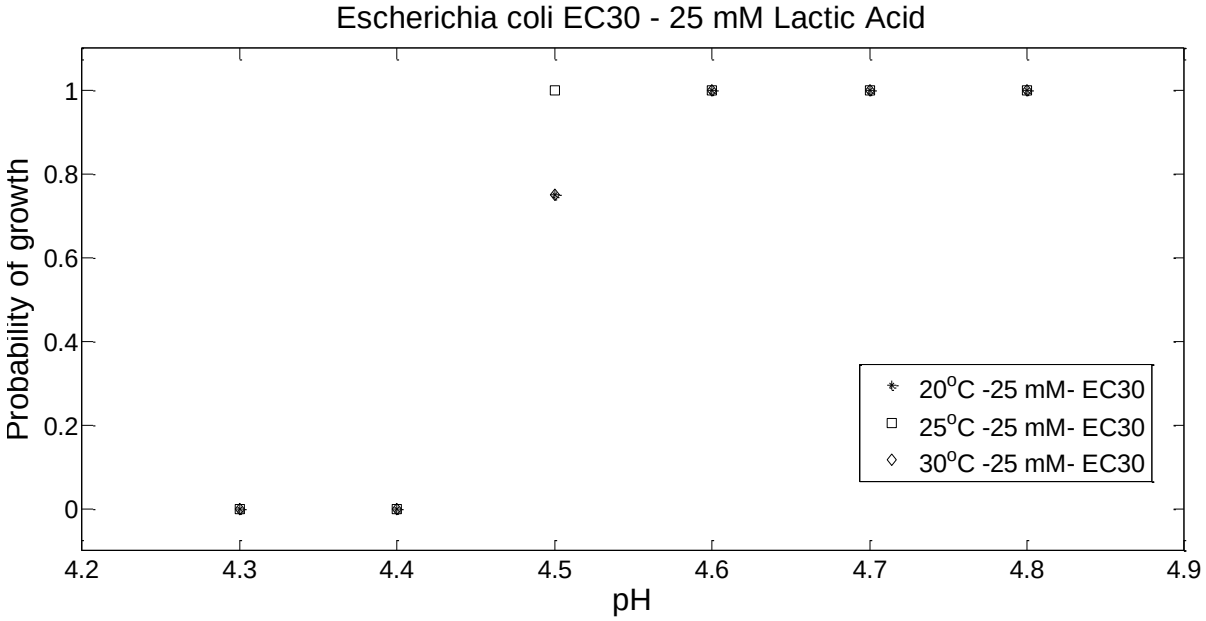
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	213.69	
pH	1	58.06	154	155.63	0.00

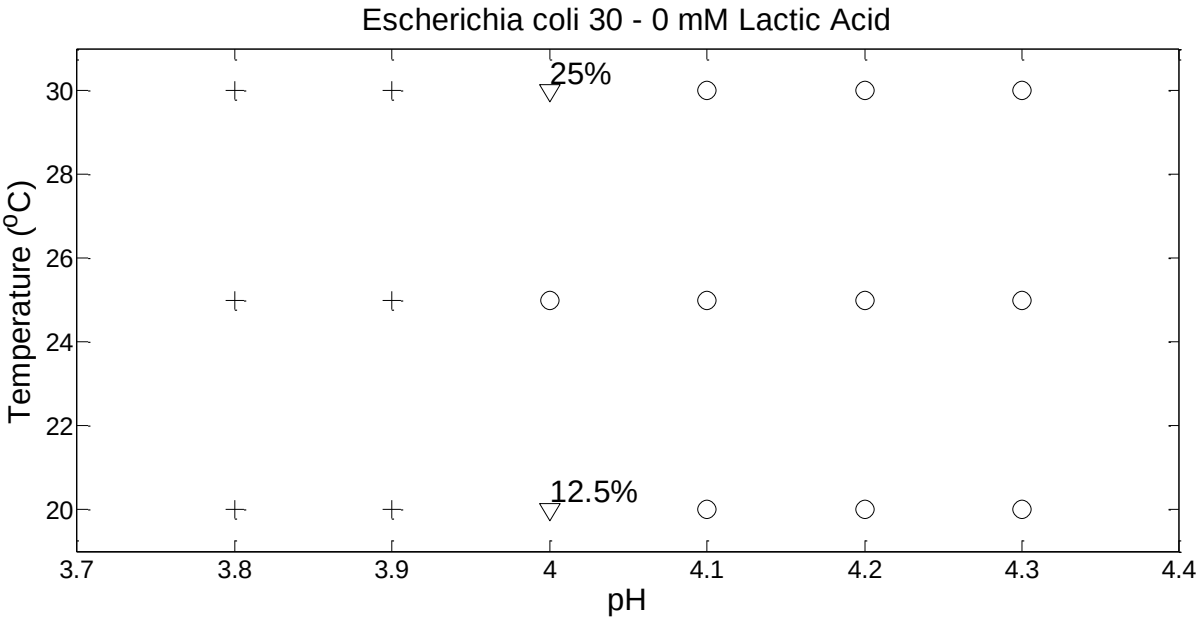
AIC	159.63
Likelihood Ratio	2.55E-14
Log-Likelihood	-77.82

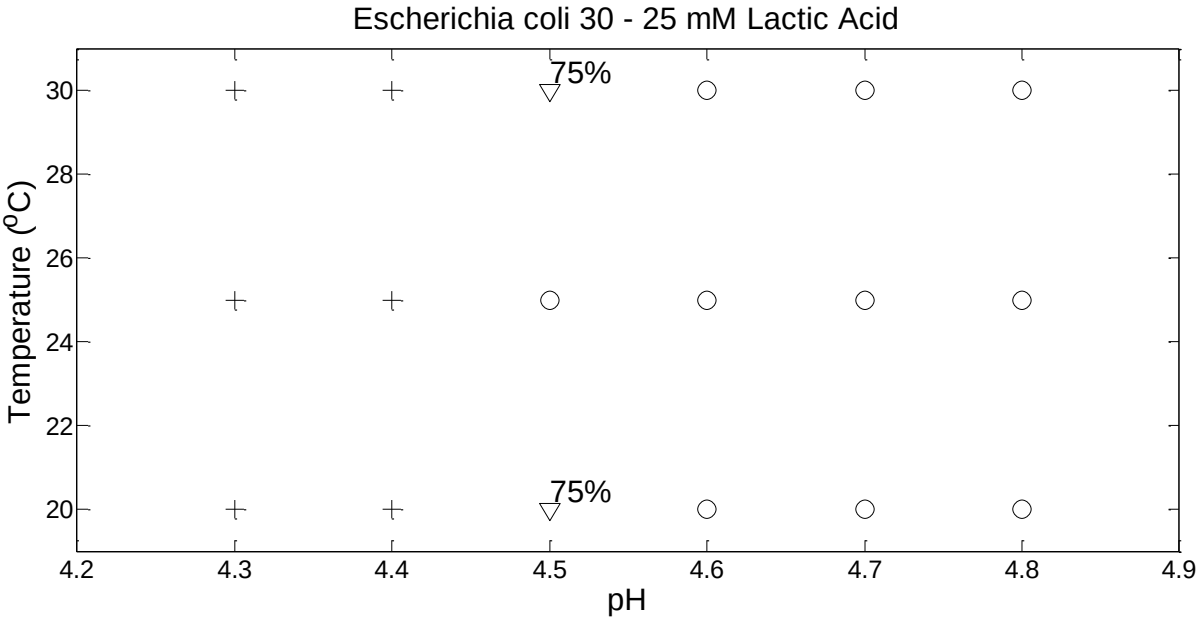





Escherichia coli EC30 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC30
25°C -0 mM- EC30
30°C -0 mM- EC30


Escherichia coli EC30 - 25 mM Lactic Acid
Probability of growth
pH
20°C -25 mM- EC30
25°C -25 mM- EC30
30°C -25 mM- EC30


Escherichia coli 30 - 0 mM Lactic Acid
25%
12.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

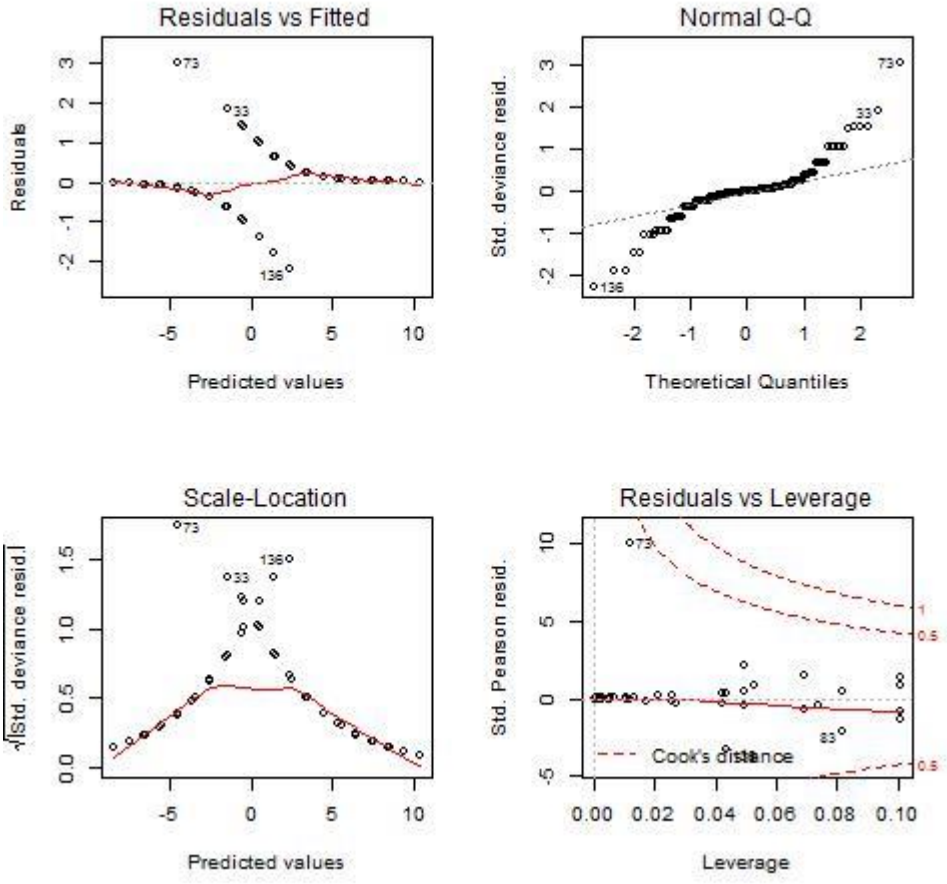

Escherichia coli 30 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

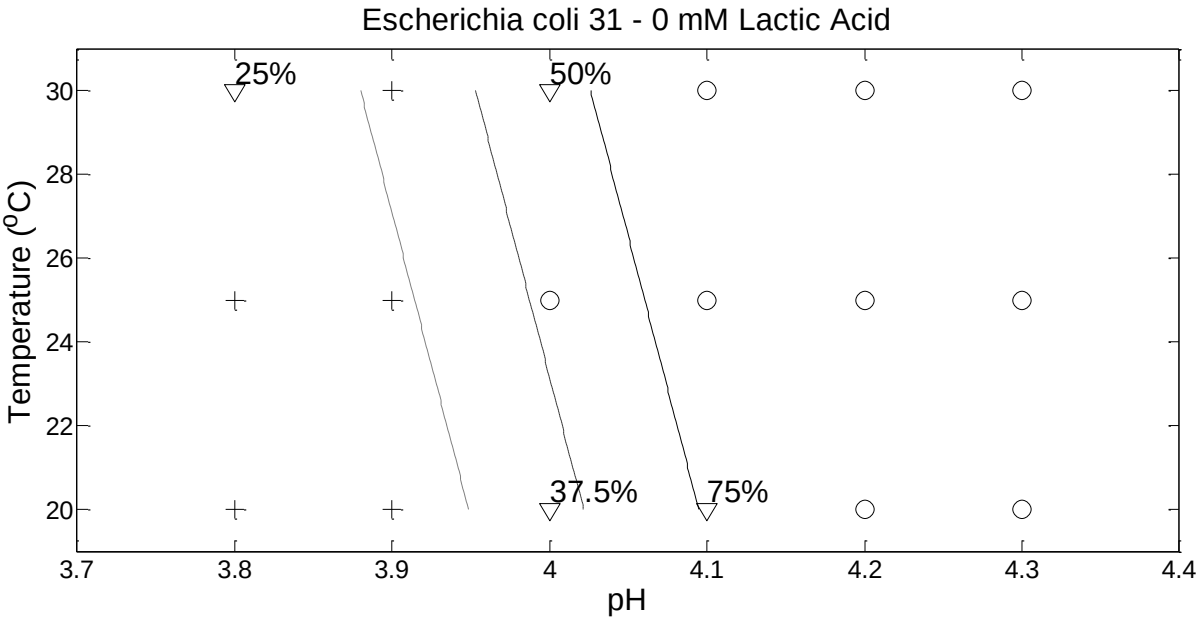
23. *E.coli* EC31 - isolated from sewerage system

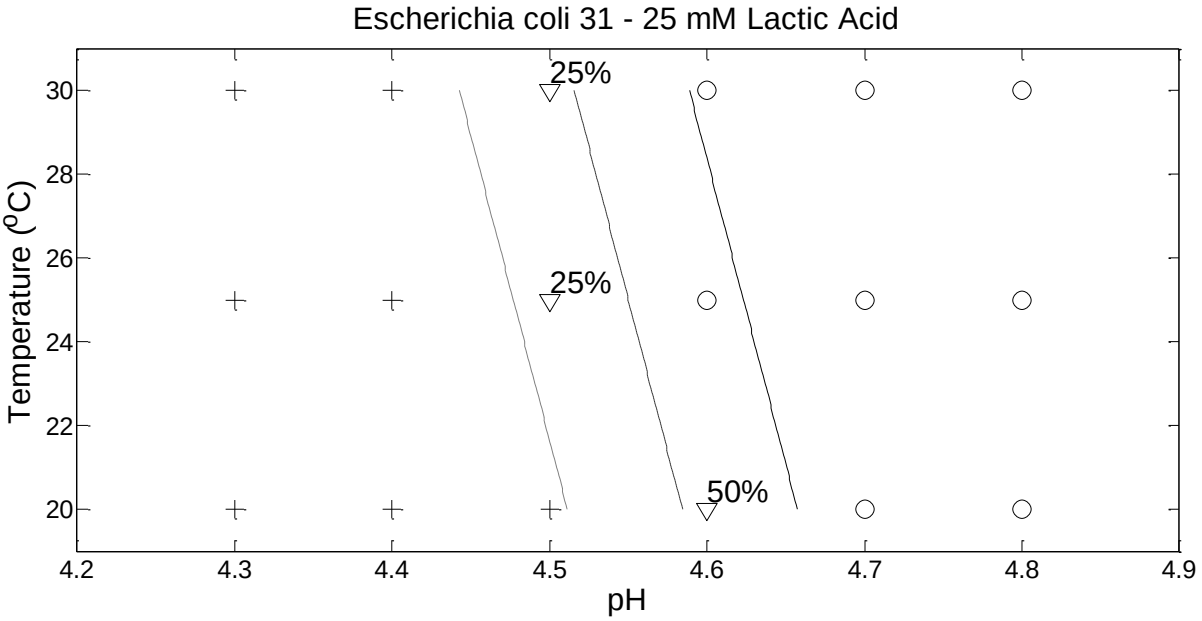
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-125.06	23.75	-5.27	0.00	-181.03	-86.17	0.00	0.00	0.00
pH	30.07	5.73	5.25	0.00	20.70	43.56	1.15E+13	9.75E+08	8.28E+18
LA	-0.68	0.13	-5.09	0.00	-0.99	-0.46	0.51	0.37	0.63
Temp	0.21	0.09	2.34	0.02	0.04	0.39	1.23	1.04	1.48

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.03	
pH	1	28.81	154	187.22	0.00
LA	1	122.29	153	64.93	0.00
Temp	1	6.33	152	58.60	0.01

AIC	66.60
Likelihood Ratio	6.57E-34
Log-Likelihood	-29.30




Escherichia coli 31 - 0 mM Lactic Acid
25%
50%
37.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

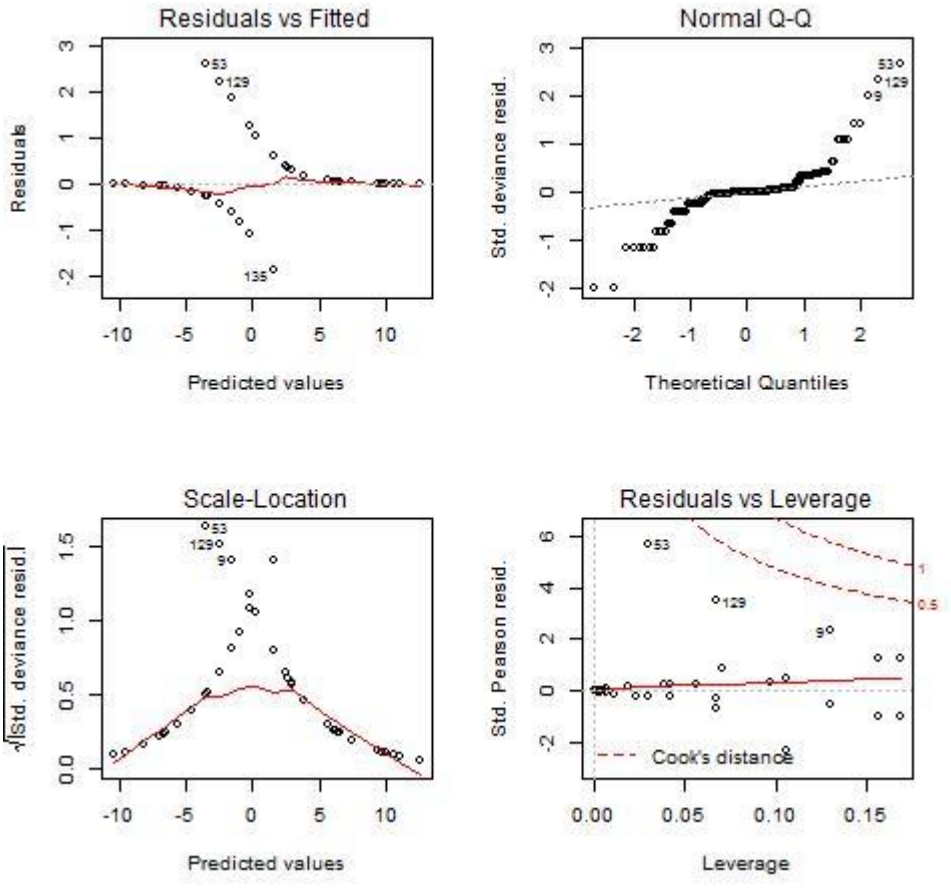

Escherichia coli 31 - 25 mM Lactic Acid
25%
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

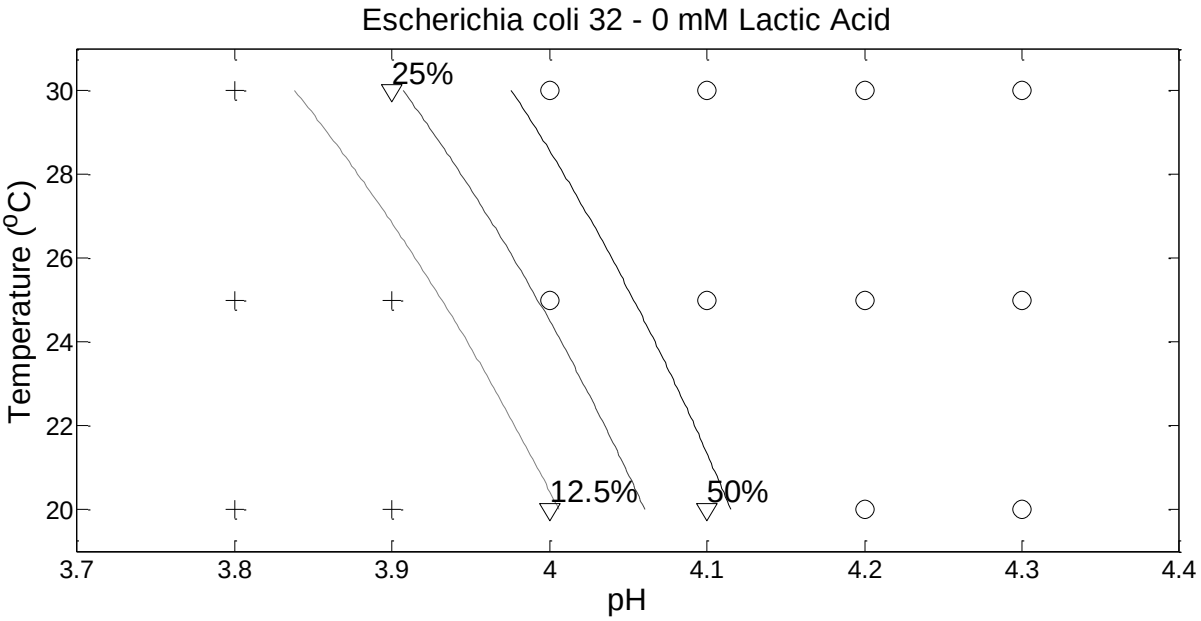
24. *E.coli* EC32 - isolated from sewerage system

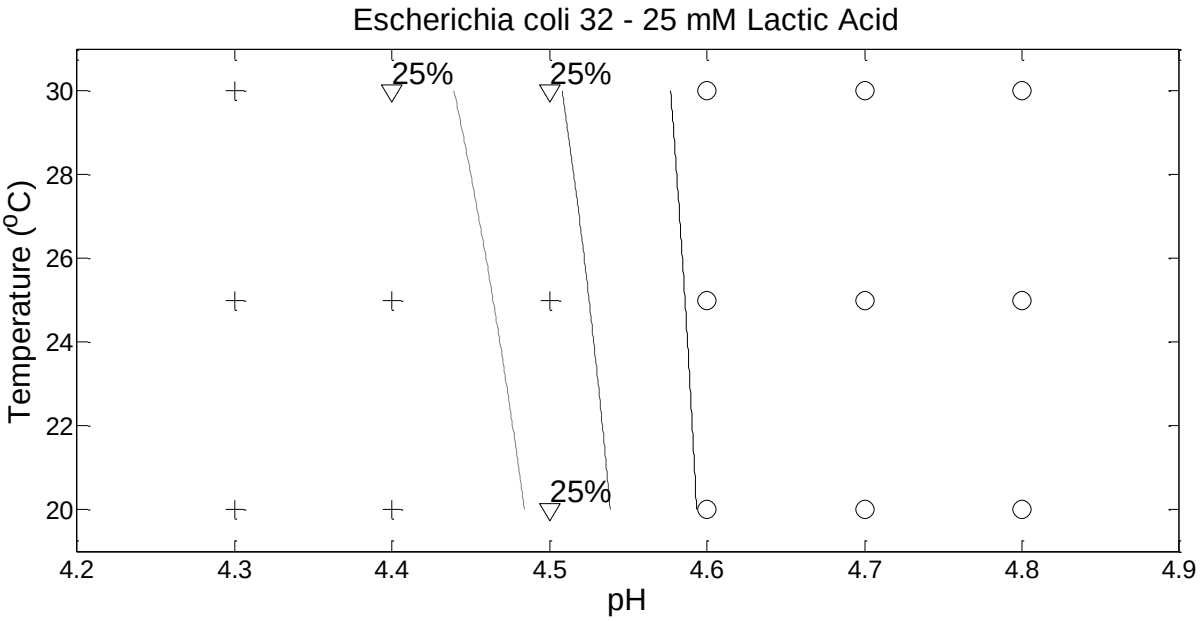
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-239.62	60.17	-3.98	0.00	-385.04	-140.30	0.00	0.00	0.00
pH	56.60	14.23	3.98	0.00	33.10	90.95	3.80E+24	2.38E+14	3.17E+39
LA	-0.77	0.16	-4.77	0.00	-1.15	-0.51	0.46	0.32	0.60
Temp	3.83	1.61	2.38	0.02	0.96	7.48	45.87	2.61	1763.64
pH:Temp	-0.82	0.37	-2.20	0.03	-1.66	-0.15	0.44	0.19	0.86

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.62	
pH	1	35.88	154	179.74	0.00
LA	1	114.08	153	65.66	0.00
Temp	1	13.43	152	52.23	0.00
pH:Temp	1	5.94	151	46.29	0.01

AIC	56.29
Likelihood Ratio	1.45-35
Log-Likelihood	-23.14




Escherichia coli 32 - 0 mM Lactic Acid
25%
12.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

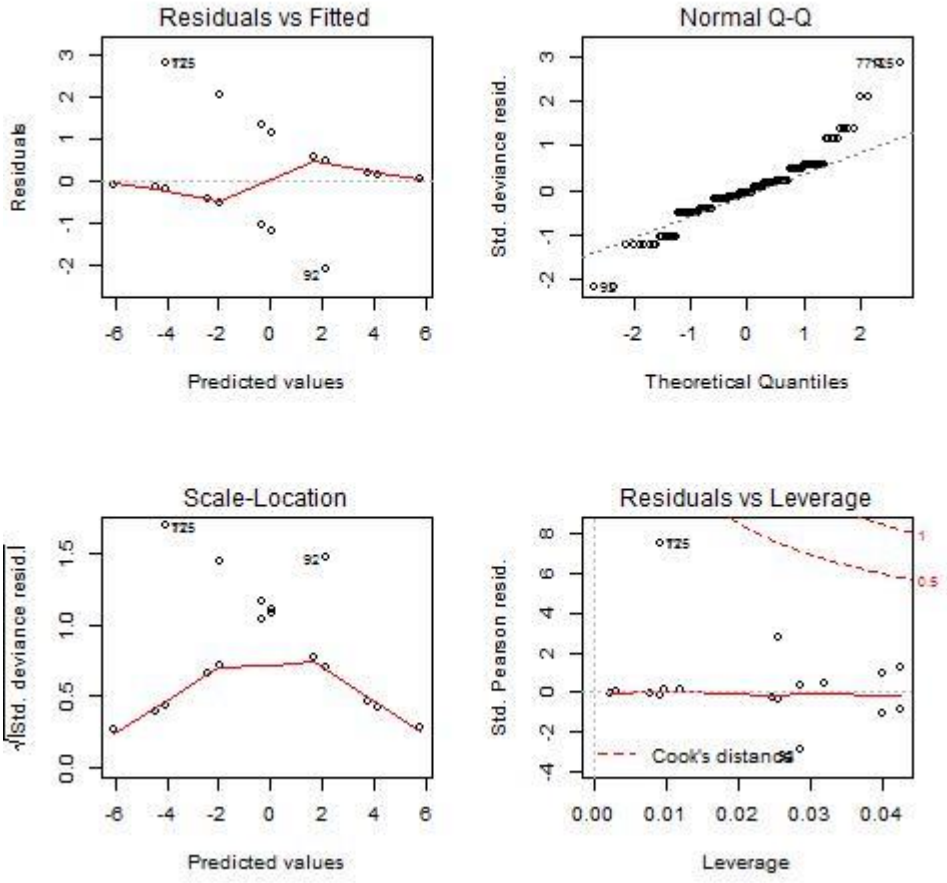

Escherichia coli 32 - 25 mM Lactic Acid
25%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

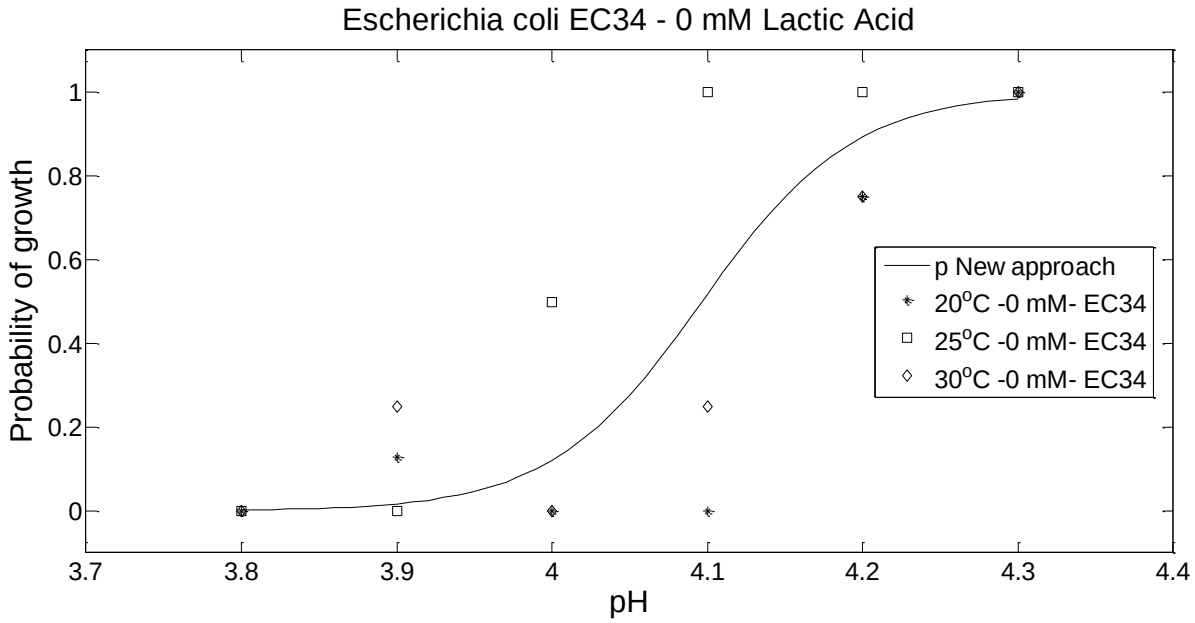
25. *E.coli* EC34 - isolated from sewerage system

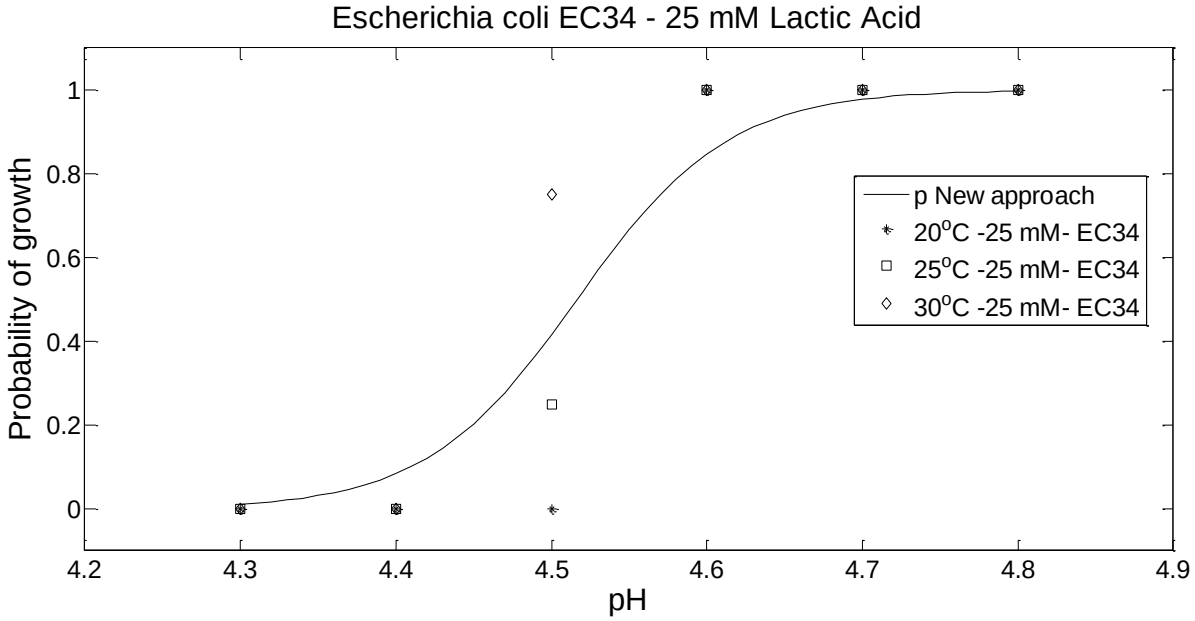
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-84.15	13.56	-6.20	0.00	-114.94	-60.98	0.00	0.00	0.00
pH	20.54	3.32	6.19	0.00	14.87	28.07	8.34E+08	2.88E+06	1.55E+12
LA	-0.35	0.06	-5.60	0.00	-0.48	-0.24	0.71	0.62	0.79

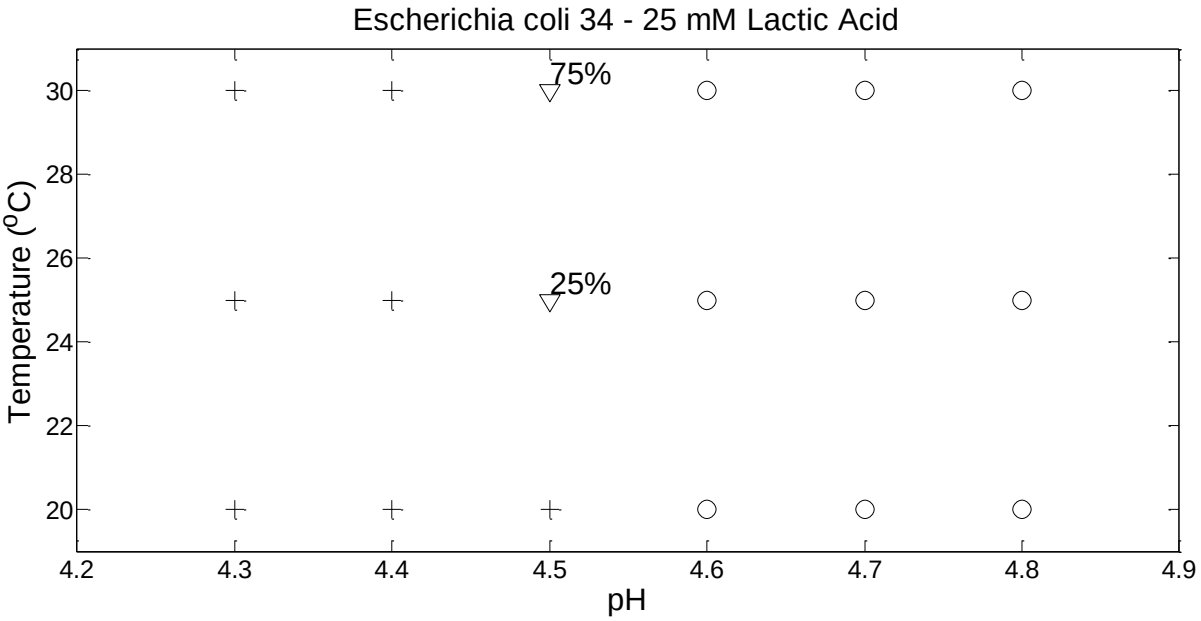
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.00	
pH	1	59.39	154	155.61	0.00
LA	1	75.82	153	79.79	0.00

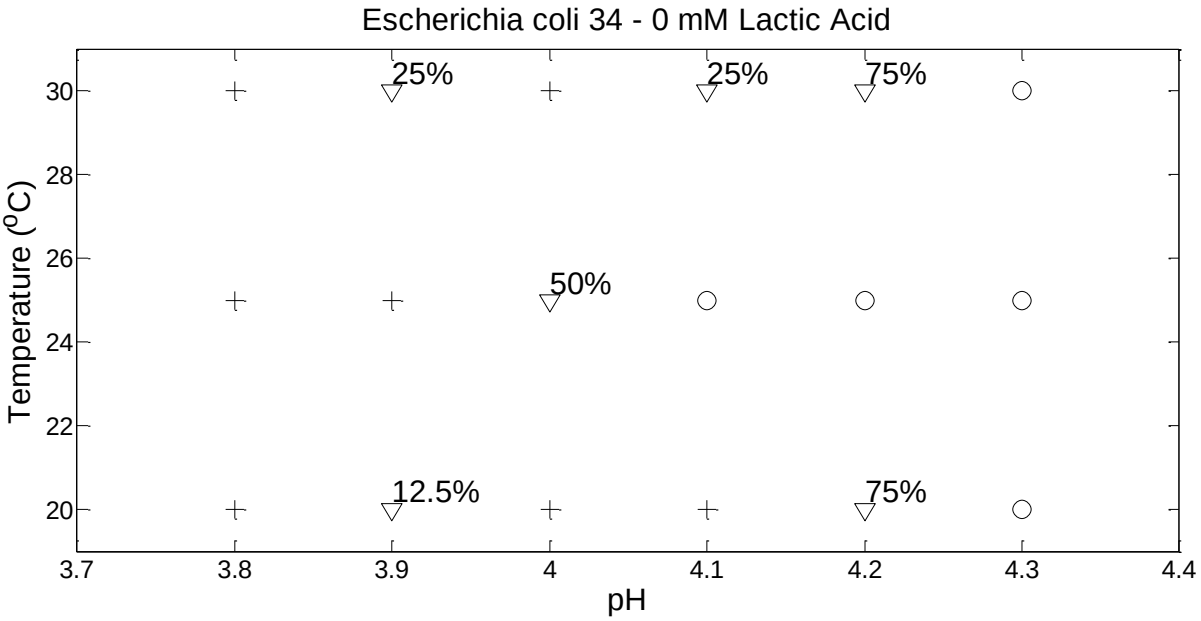
AIC	85.79
Likelihood Ratio	4.36E-30
Log-Likelihood	-39.90




Escherichia coli EC34 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC34
25°C -0 mM- EC34
30°C -0 mM- EC34


Escherichia coli EC34 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC34
25°C -25 mM- EC34
30°C -25 mM- EC34


Escherichia coli 34 - 25 mM Lactic Acid
75%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

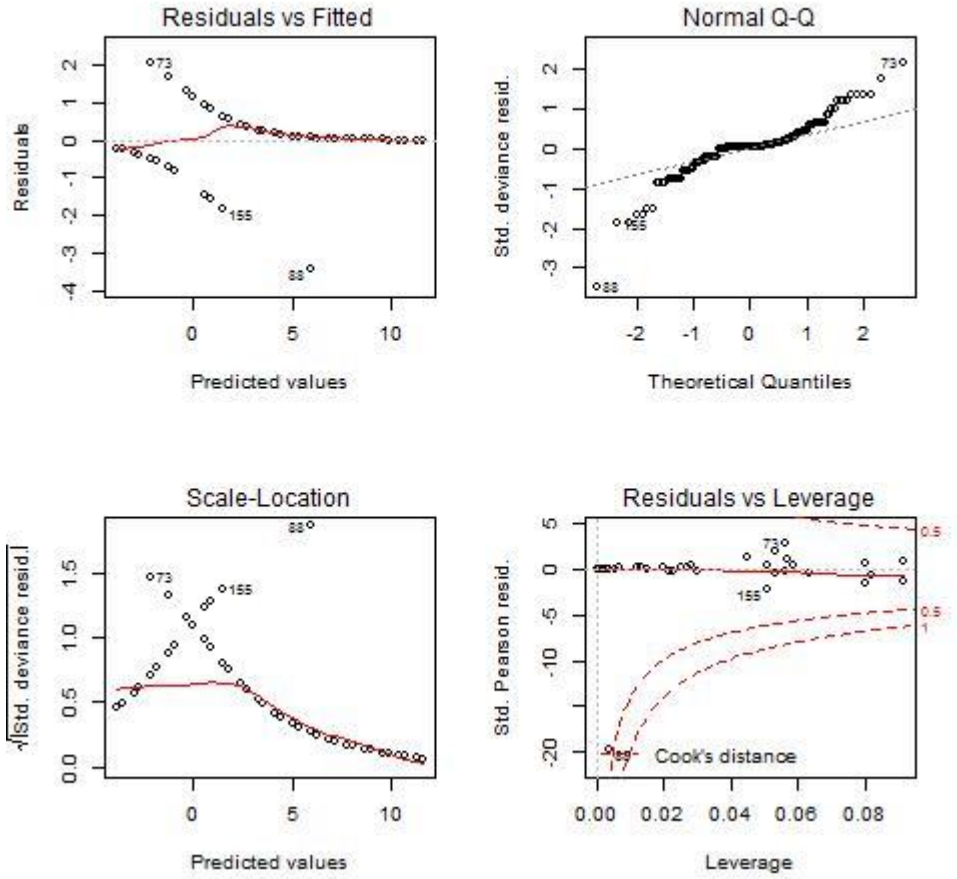

Escherichia coli 34 - 0 mM Lactic Acid
25%
25%
75%
50%
12.5%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

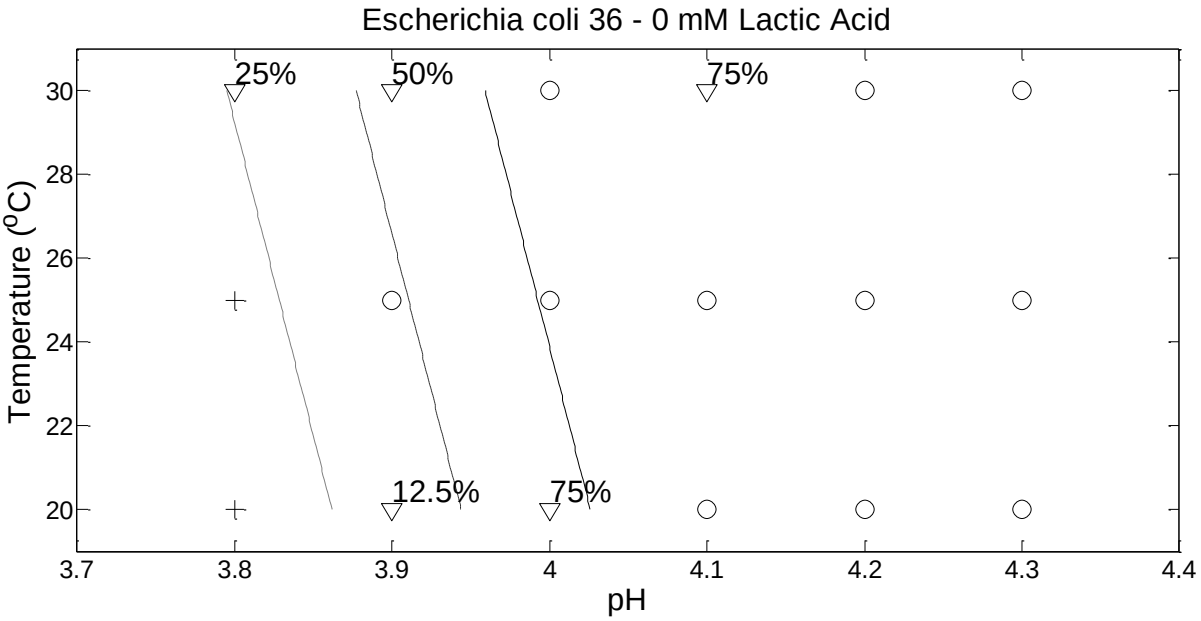
26. *E.coli* EC36 - isolated from sewerage system

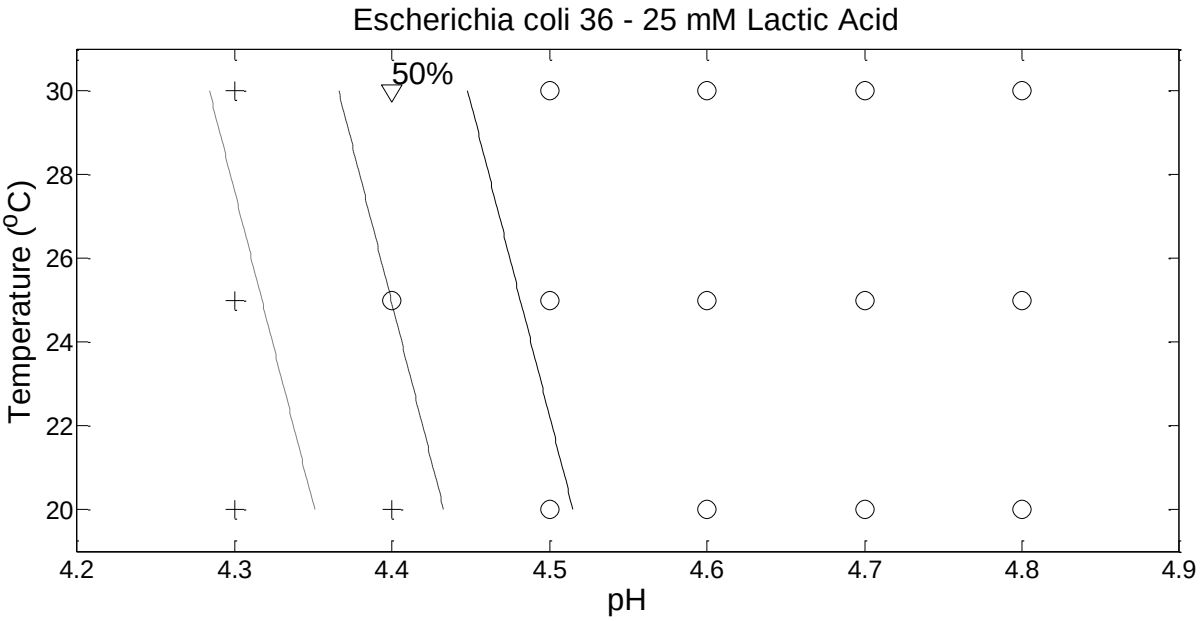
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-109.15	20.22	-5.40	0.00	-155.25	-75.01	0.00	0.00	0.00
pH	26.77	4.96	5.39	0.00	18.39	38.11	4.23E+11	9.70E+07	3.57E+16
LA	-0.52	0.10	-5.20	0.00	-0.75	-0.35	0.59	0.47	0.70
Temp	0.18	0.08	2.19	0.03	0.03	0.35	1.20	1.03	1.42

Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)	
NULL			155	187.44	
pH	1	35.62	154	151.82	0.00
LA	1	80.16	153	71.66	0.00
Temp	1	5.40	152	66.26	0.02

AIC	74.26
Likelihood Ratio	4.29E-26
Log-Likelihood	-33.13




Escherichia coli 36 - 0 mM Lactic Acid
25%
50%
75%
12.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

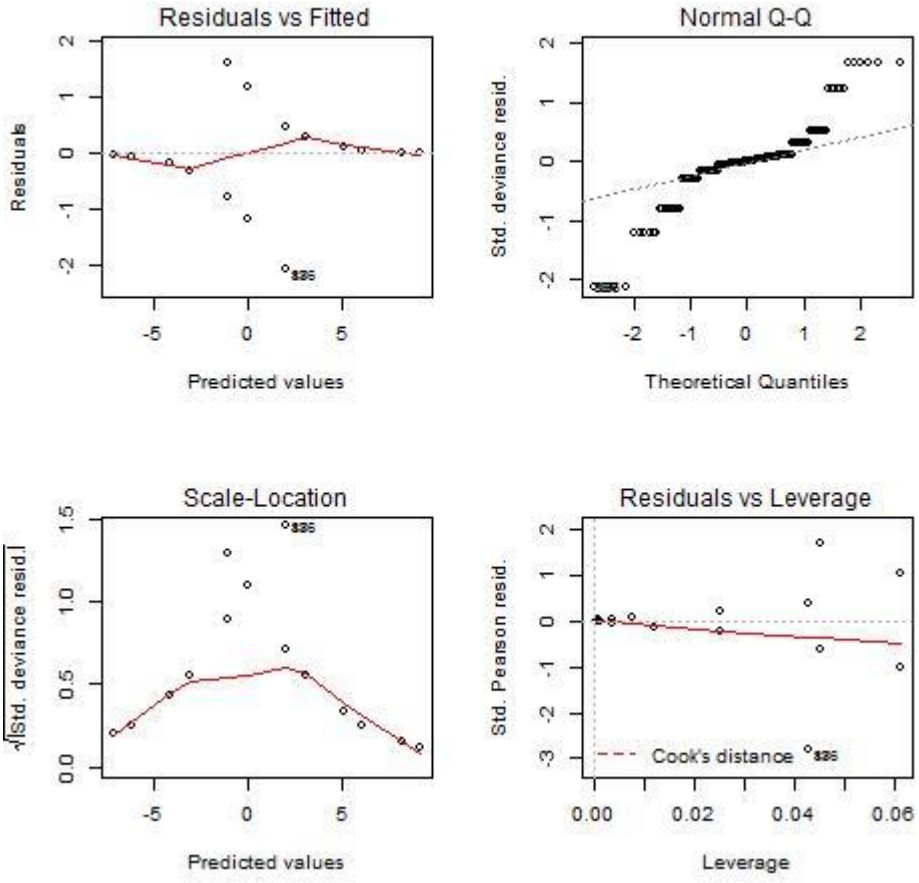

Escherichia coli 36 - 25 mM Lactic Acid
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

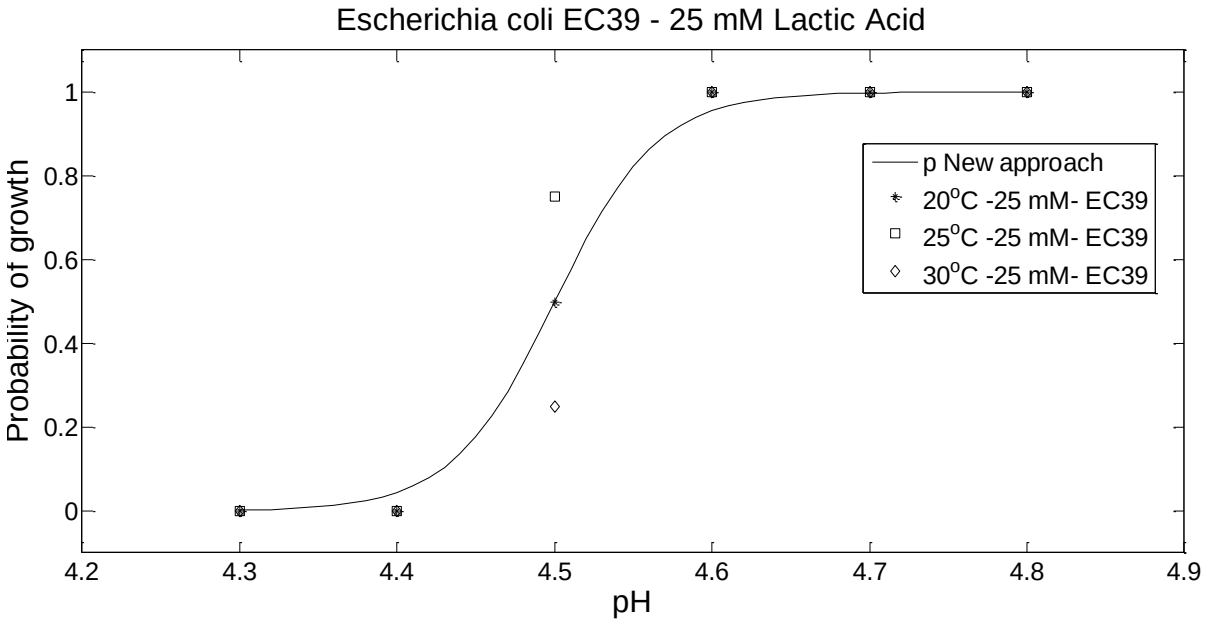
27. *E.coli* EC39 - isolated from sewerage system

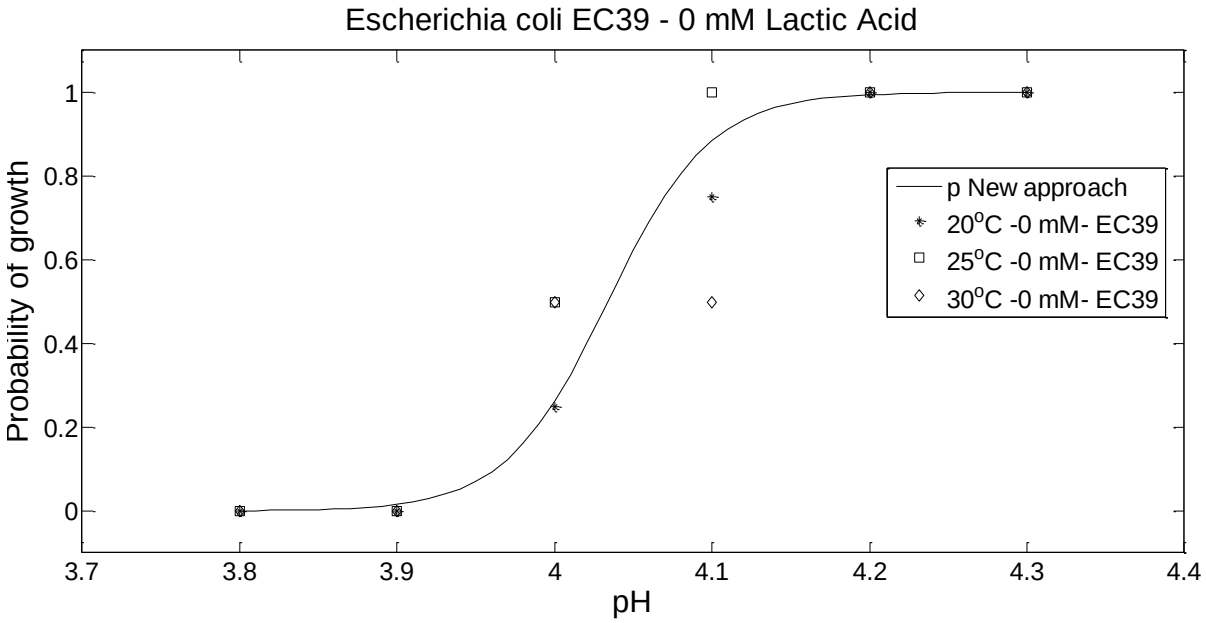
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-123.81	23.94	-5.17	0.00	-181.43	-84.99	0.00	0.00	0.00
pH	30.69	5.95	5.16	0.00	21.05	45.03	2.14E+13	1.39E+09	3.60E+19
LA	-0.57	0.12	-4.91	0.00	-0.85	-0.38	0.56	0.43	0.68

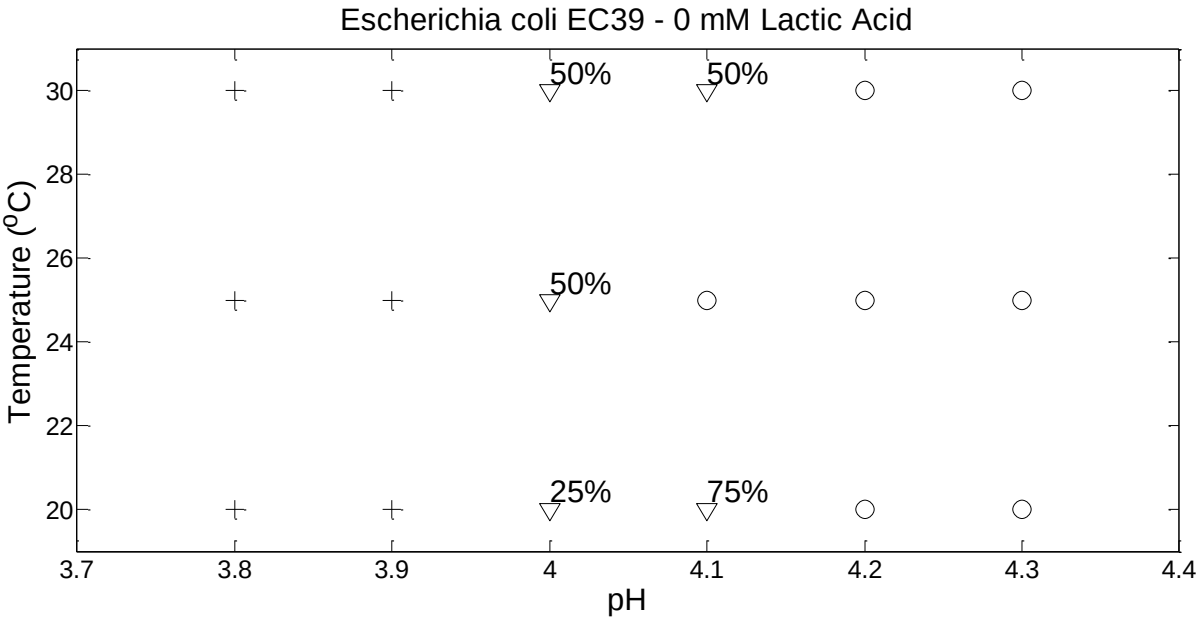
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.03	
pH	1	52.75	154	163.28	0.00
LA	1	106.36	153	56.92	0.00

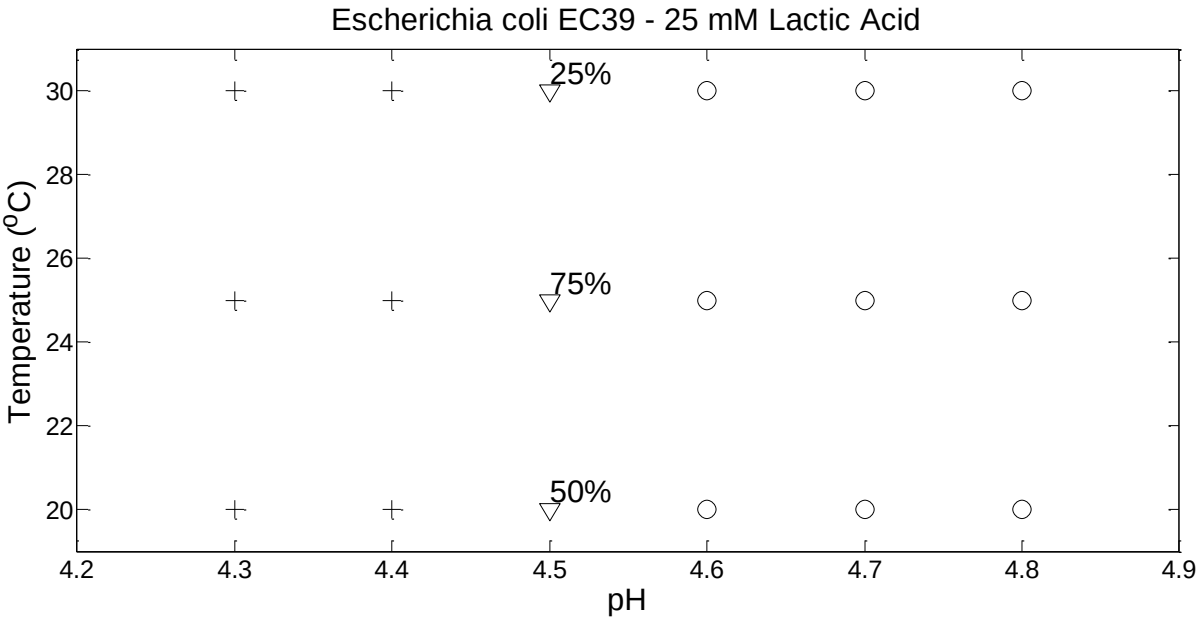
AIC	62.92
Likelihood Ratio	2.82E-35
Log-Likelihood	-28.46




Escherichia coli EC39 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC39
25°C -25 mM- EC39
30°C -25 mM- EC39
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC39 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC39
25°C -0 mM- EC39
30°C -0 mM- EC39
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC39 - 0 mM Lactic Acid
50%
50%
50%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

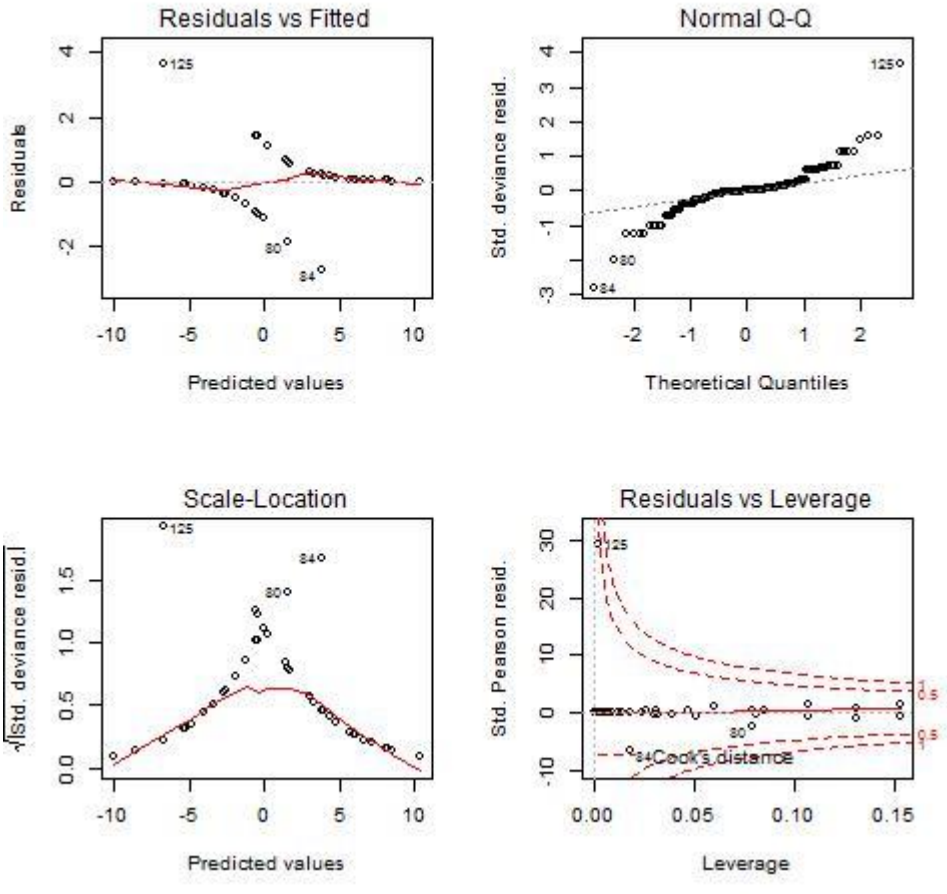

Escherichia coli EC39 - 25 mM Lactic Acid
25%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

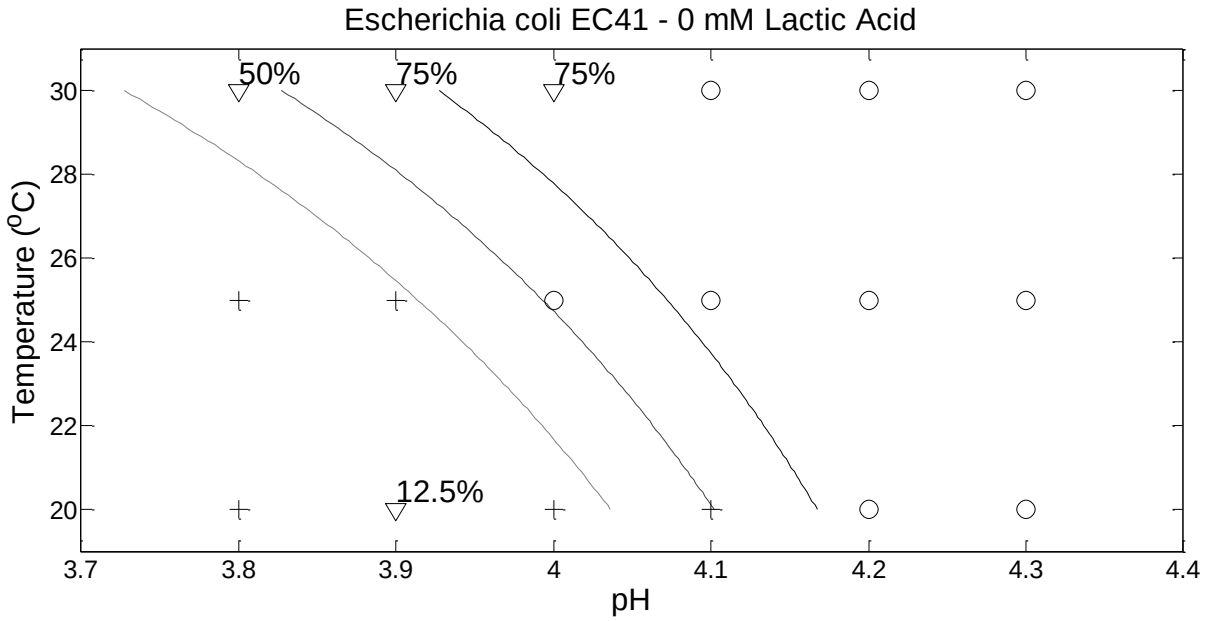
28. *E.coli* EC41 - isolated from sewerage system

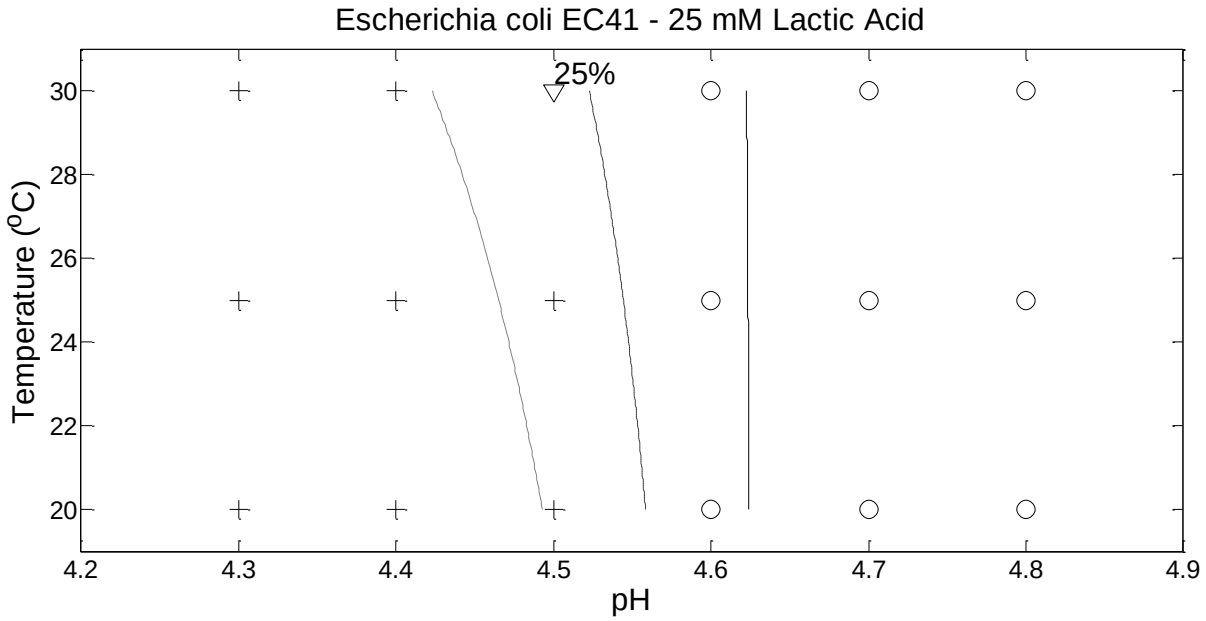
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-243.77	53.35	-4.57	0.00	-366.87	-153.88	0.00	0.00	0.00
pH	56.49	12.42	4.55	0.00	35.53	85.17	3.40E+24	2.71E+15	9.75E+36
LA	-0.61	0.12	-5.11	0.00	-0.89	-0.41	0.54	0.41	0.66
Temp	5.32	1.50	3.54	0.00	2.67	8.68	204.46	14.49	5891.67
pH:Temp	-1.15	0.34	-3.35	0.00	-1.91	-0.54	0.32	0.15	0.58

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.85	
pH	1	26.09	154	189.77	0.00
LA	1	92.56	153	97.21	0.00
Temp	1	23.69	152	73.52	0.00
pH:Temp	1	15.92	151	57.60	0.00

AIC	67.60
Likelihood Ratio	3.46E-33
Log-Likelihood	-28.80




Escherichia coli EC41 - 0 mM Lactic Acid
50%
75%
75%
12.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

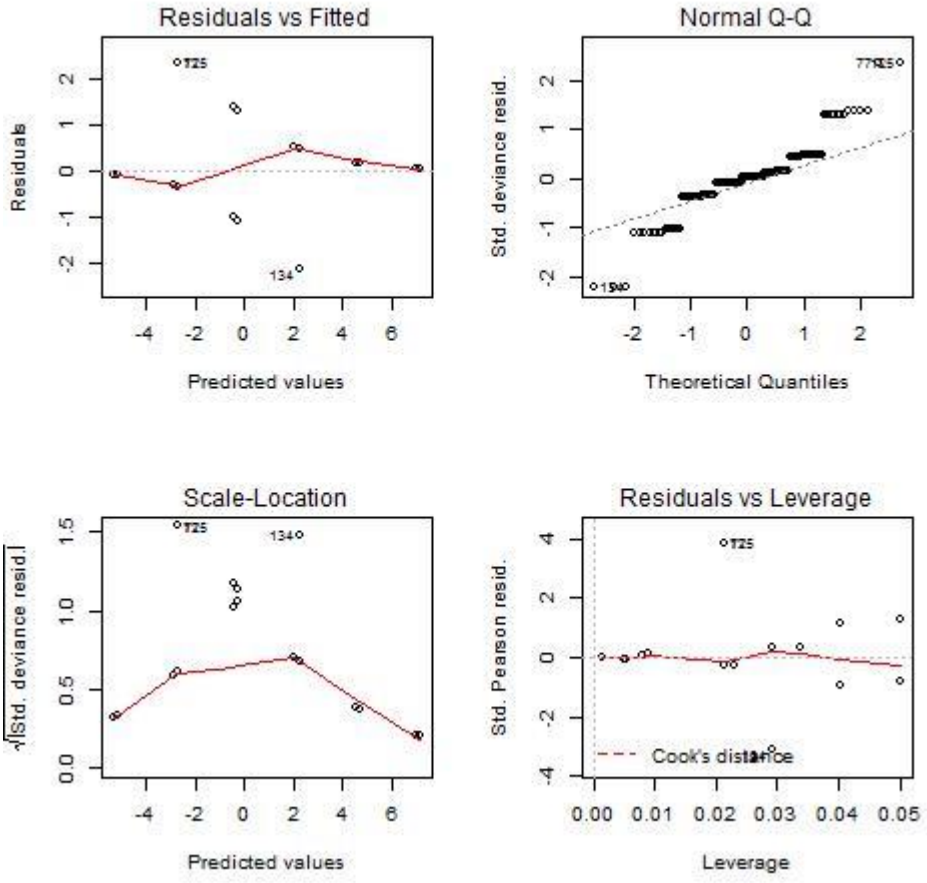

Escherichia coli EC41 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

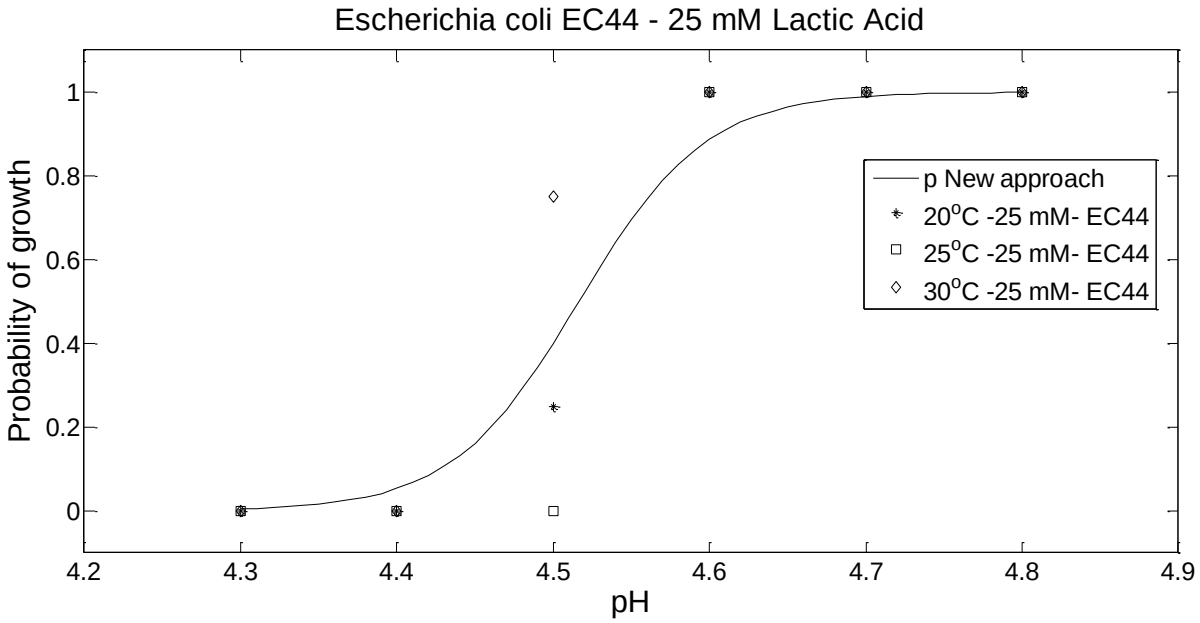
29. *E.coli* EC44 - isolated from sewerage system

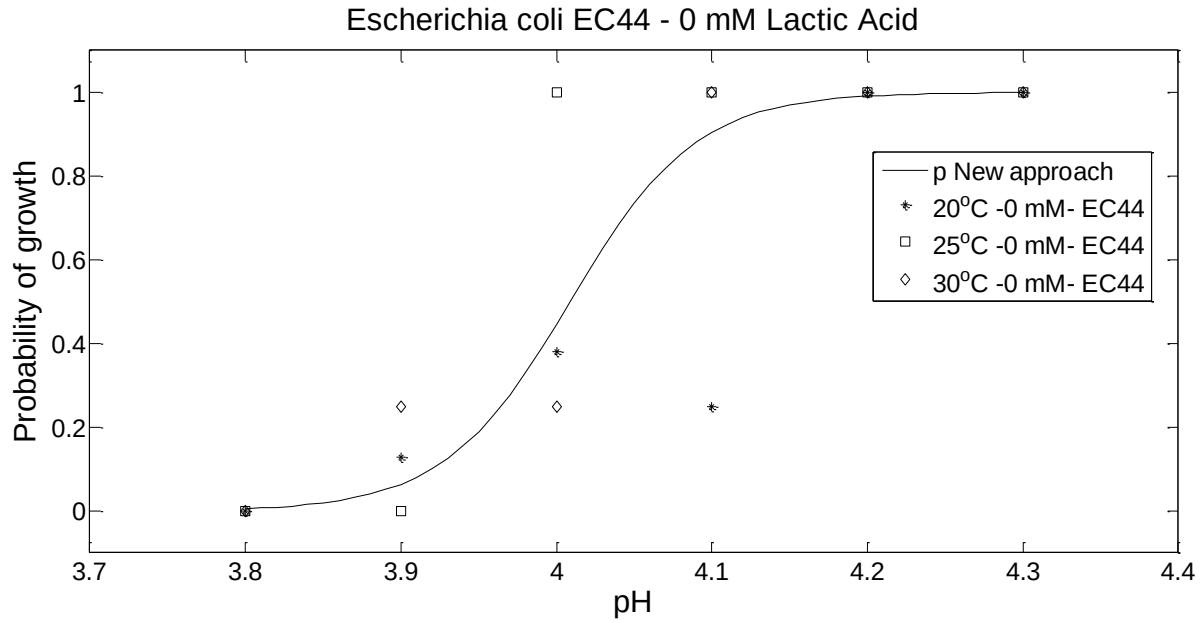
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-98.84	17.24	-5.73	0.00	-139.11	-70.11	0.00	0.00	0.00
pH	24.66	4.31	5.73	0.00	17.48	34.72	5.11E+10	3.90E+07	1.20E+15
LA	-0.50	0.09	-5.46	0.00	-0.71	-0.35	0.61	0.49	0.71

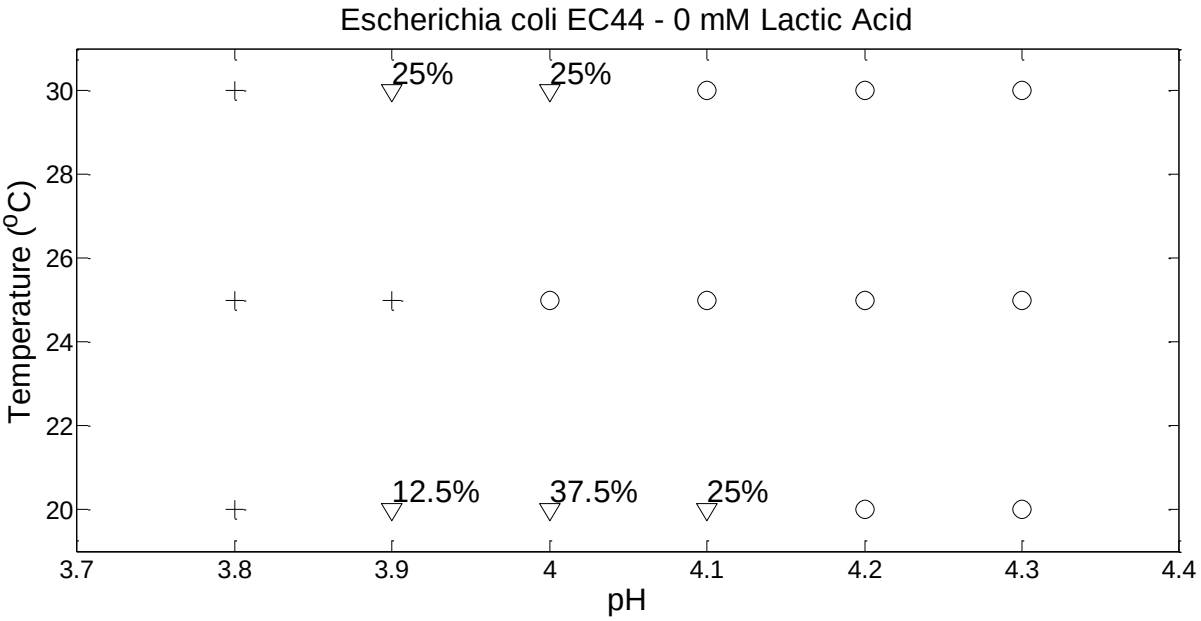
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.62	
pH	1	38.75	154	176.87	0.00
LA	1	105.23	153	71.63	0.00

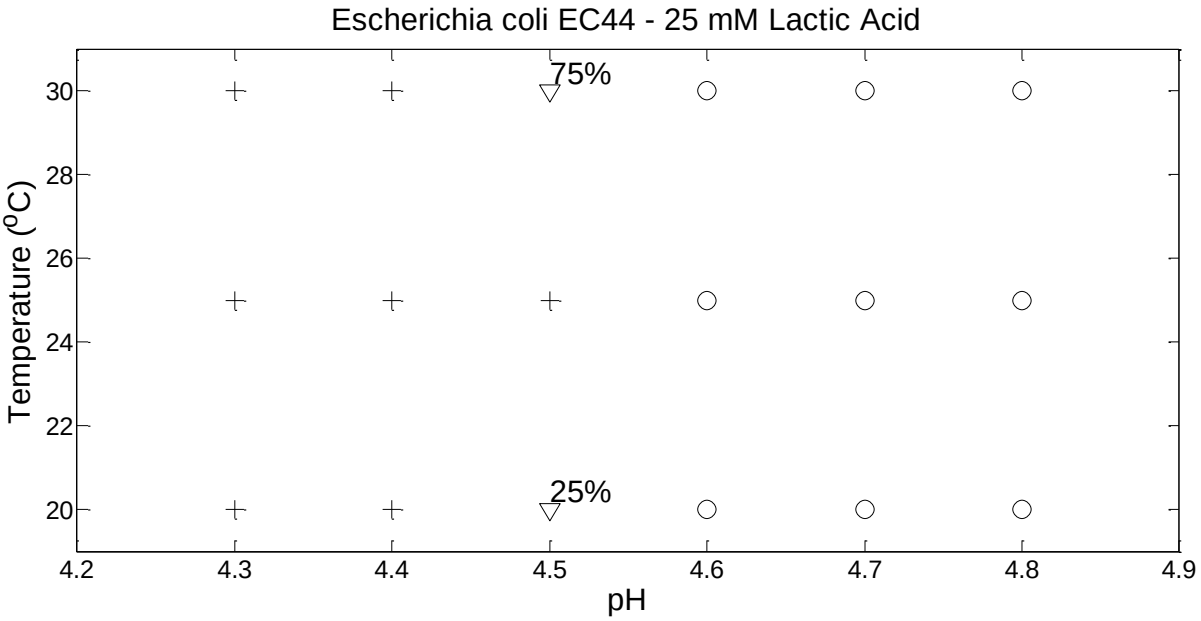
AIC	77.63
Likelihood Ratio	5.42E-32
Log-Likelihood	-35.82




Escherichia coli EC44 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC44
25°C -25 mM- EC44
30°C -25 mM- EC44
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC44 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC44
25°C -0 mM- EC44
30°C -0 mM- EC44
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC44 - 0 mM Lactic Acid
25%
25%
12.5%
37.5%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

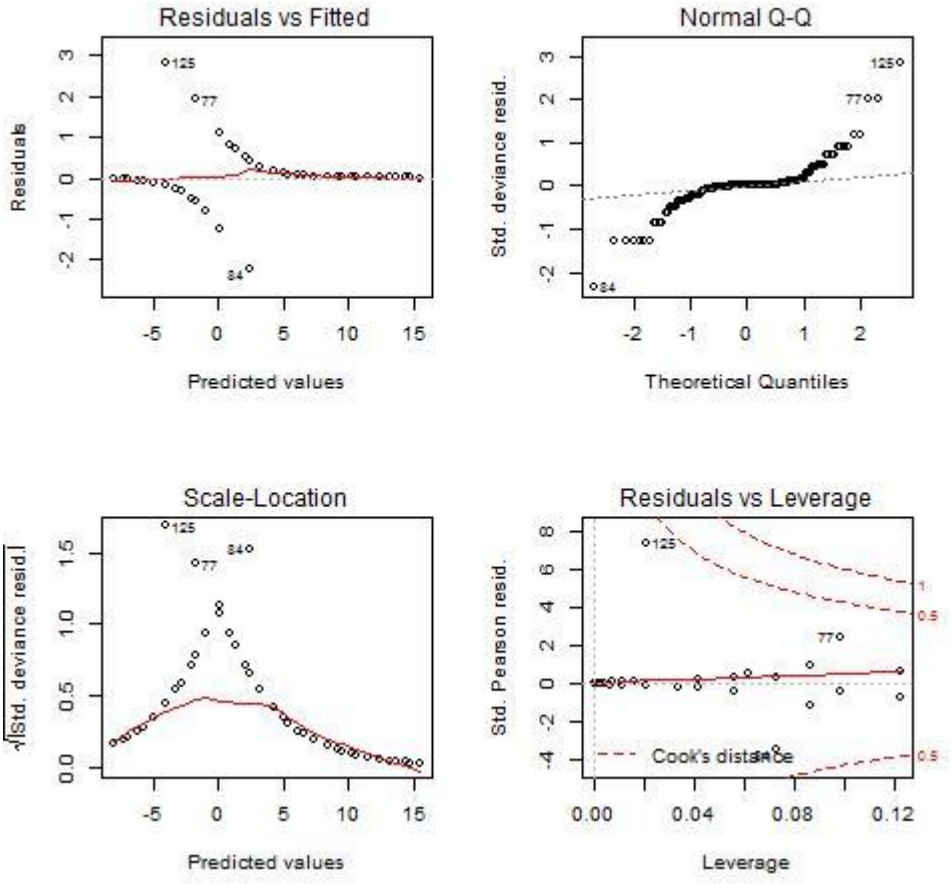

Escherichia coli EC44 - 25 mM Lactic Acid
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

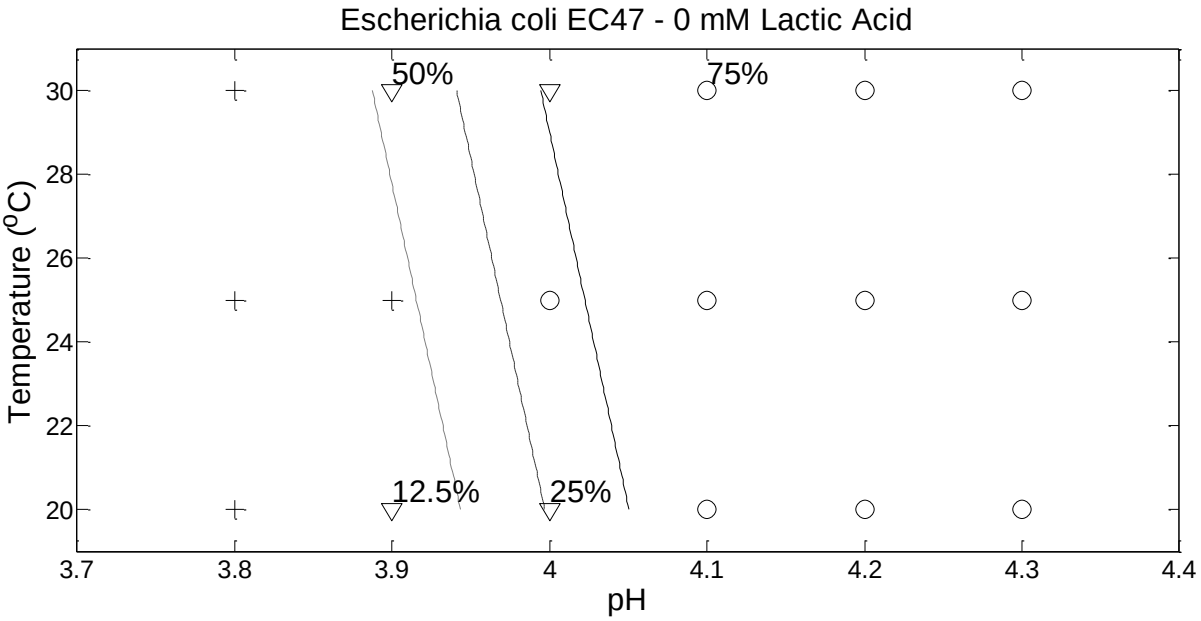
30. *E.coli* EC47 - isolated from sewerage system

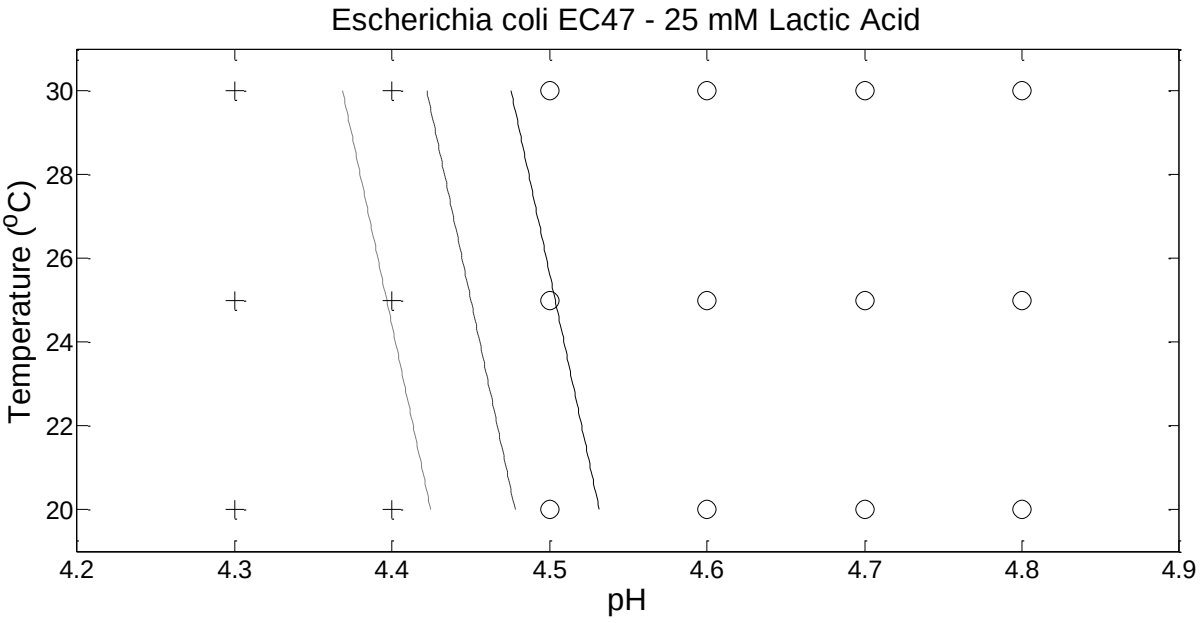
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-168.69	37.07	-4.55	0.00	-259.95	-109.96	0.00	0.00	0.00
pH	41.06	8.96	4.58	0.00	26.80	63.00	6.76E+17	4.38E+11	2.30E+27
LA	-0.79	0.18	-4.50	0.00	-1.22	-0.51	0.45	0.29	0.60
Temp	0.23	0.11	2.09	0.04	0.03	0.48	1.26	1.03	1.61

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	207.88	
pH	1	47.44	154	160.44	0.00
LA	1	110.76	153	49.67	0.00
Temp	1	5.38	152	44.30	0.02

AIC	52.30
Likelihood Ratio	3.09E-35
Log-Likelihood	-22.15




Escherichia coli EC47 - 0 mM Lactic Acid
50%
75%
12.5%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

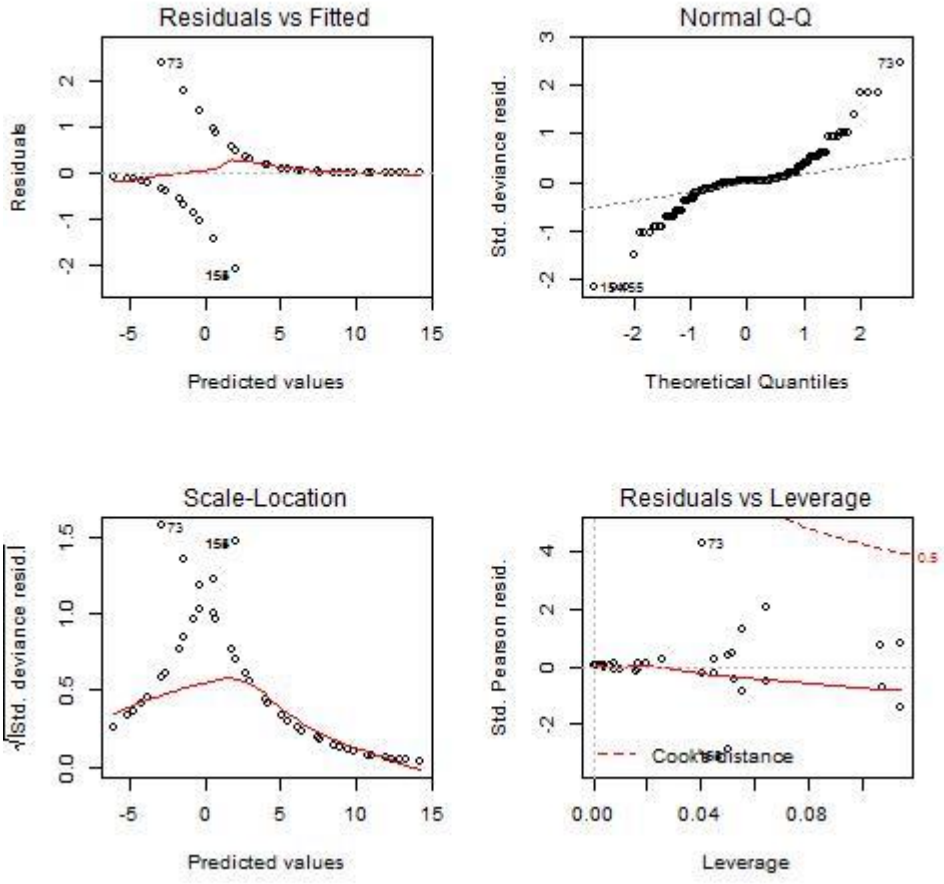

Escherichia coli EC47 - 25 mM Lactic Acid
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

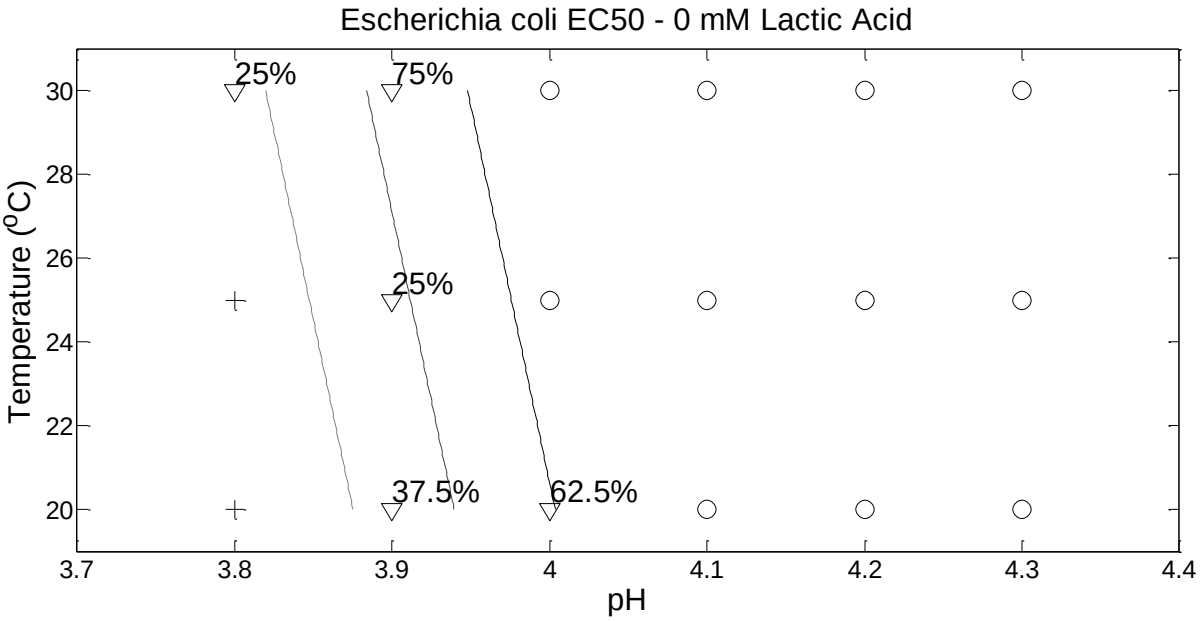
31. *E.coli* EC50 - isolated from sewerage system

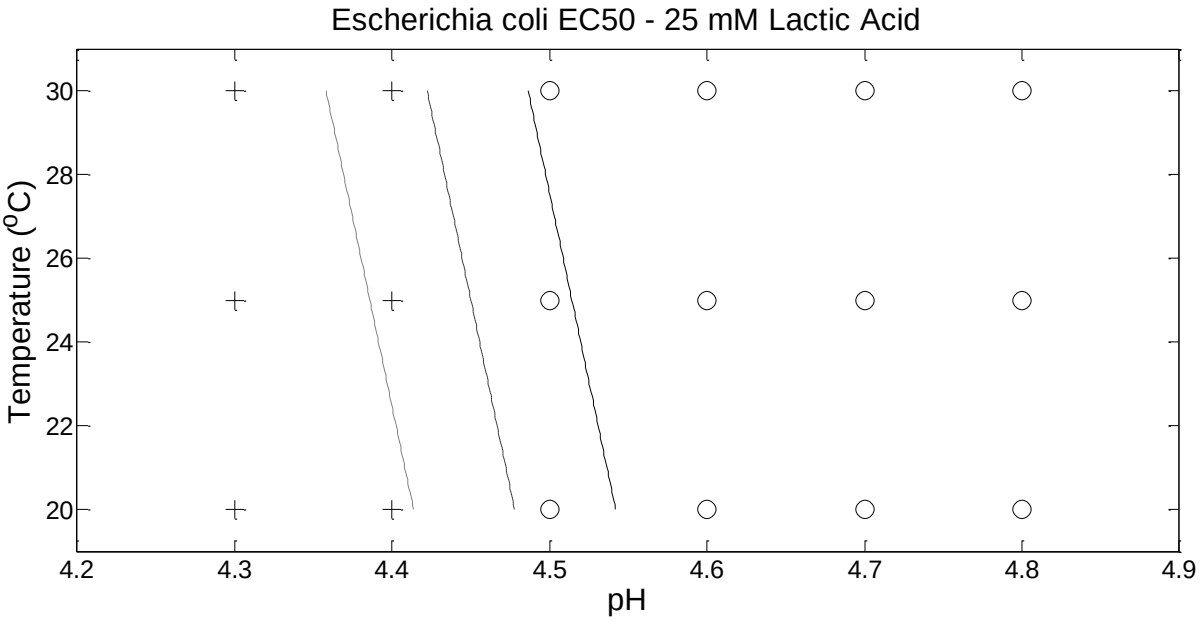
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-138.70	27.24	-5.09	0.00	-202.22	-93.76	0.00	0.00	0.00
pH	34.24	6.71	5.10	0.00	23.17	49.90	7.43E+14	1.15E+10	4.70E+21
LA	-0.74	0.15	-4.99	0.00	-1.08	-0.49	0.48	0.34	0.61
Temp	0.19	0.09	2.06	0.04	0.02	0.39	1.21	1.02	1.47

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	197.18	
pH	1	27.86	154	169.32	0.00
LA	1	111.43	153	57.89	0.00
Temp	1	4.80	152	53.09	0.03

AIC	61.09
Likelihood Ratio	4.97E-31
Log-Likelihood	-26.55




Escherichia coli EC50 - 0 mM Lactic Acid
25%
75%
25%
37.5%
62.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

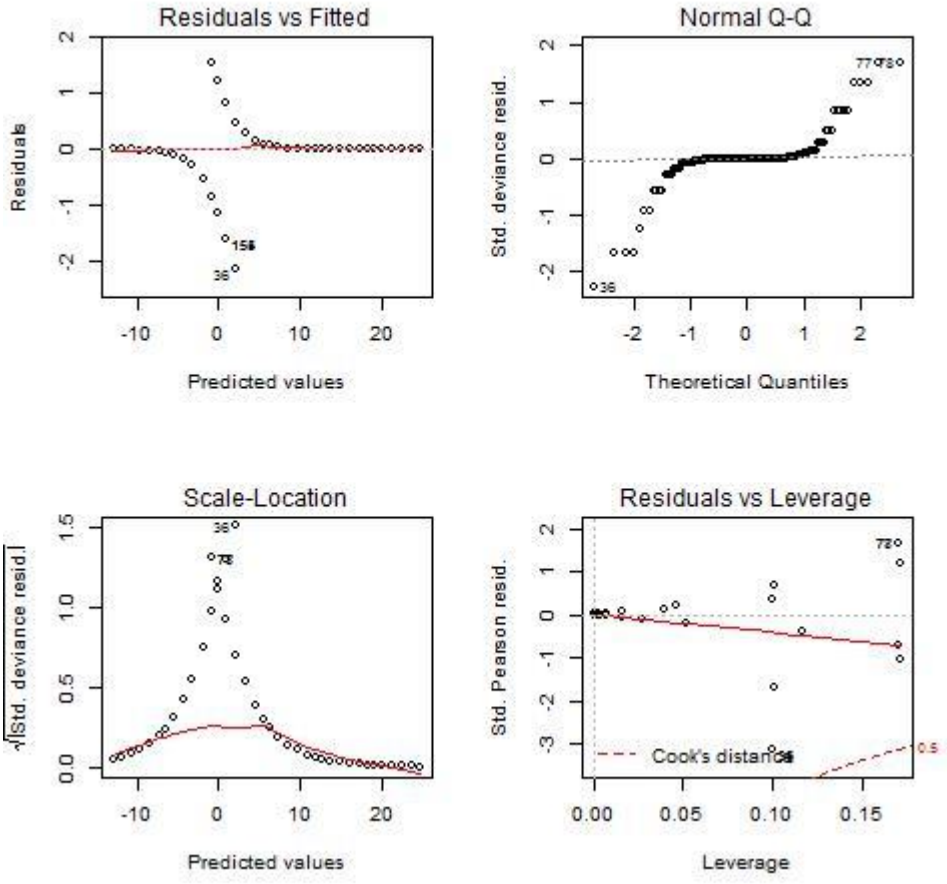

Escherichia coli EC50 - 25 mM Lactic Acid
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

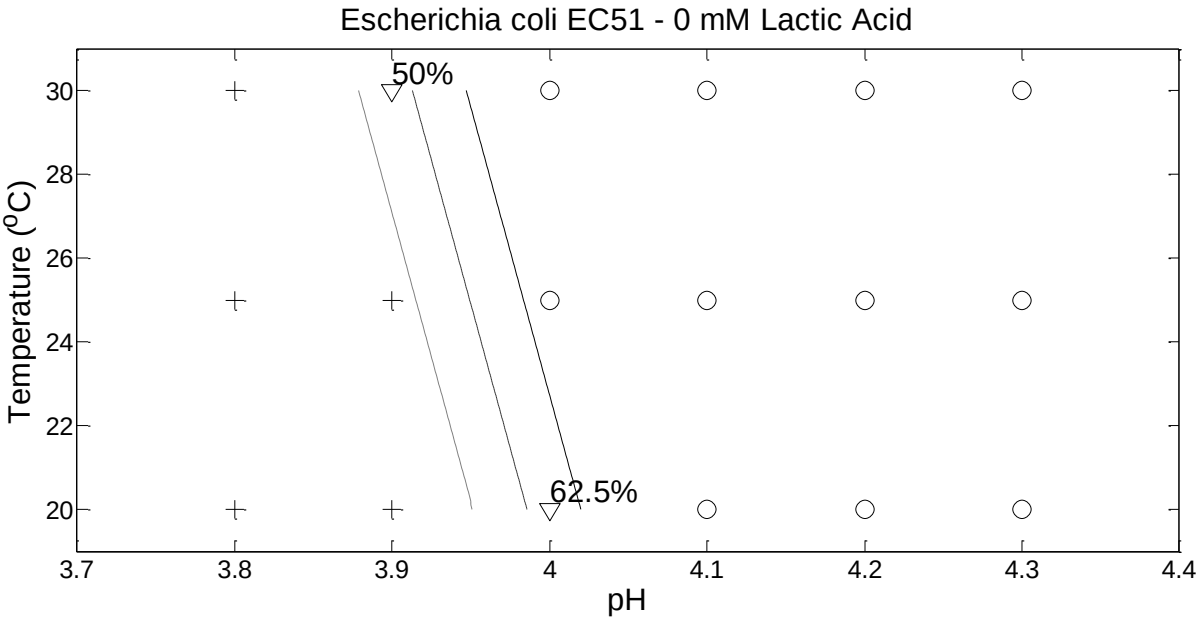
32. *E.coli* EC51 - isolated from sewerage system

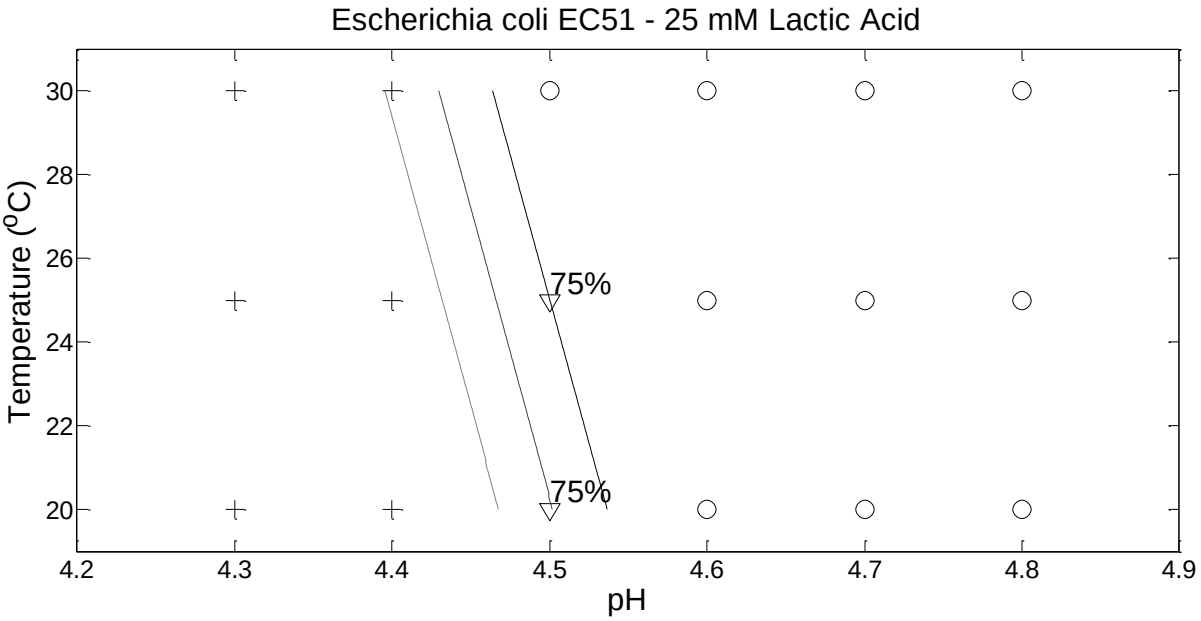
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-264.96	80.64	-3.29	0.00	-503.29	-152.40	0.00	0.00	0.00
pH	64.16	19.27	3.33	0.00	37.14	120.98	7.33E+27	1.34E+16	3.46E+52
LA	-1.33	0.40	-3.35	0.00	-2.48	-0.76	0.27	0.08	0.47
Temp	0.46	0.21	2.23	0.03	0.15	1.05	1.59	1.16	2.85

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	206.91	
pH	1	38.22	154	168.69	0.00
LA	1	128.13	153	40.56	0.00
Temp	1	10.28	152	30.28	0.00

AIC	38.28
Likelihood Ratio	4.7E-38
Log-Likelihood	-15.14




Escherichia coli EC51 - 0 mM Lactic Acid
50%
62.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

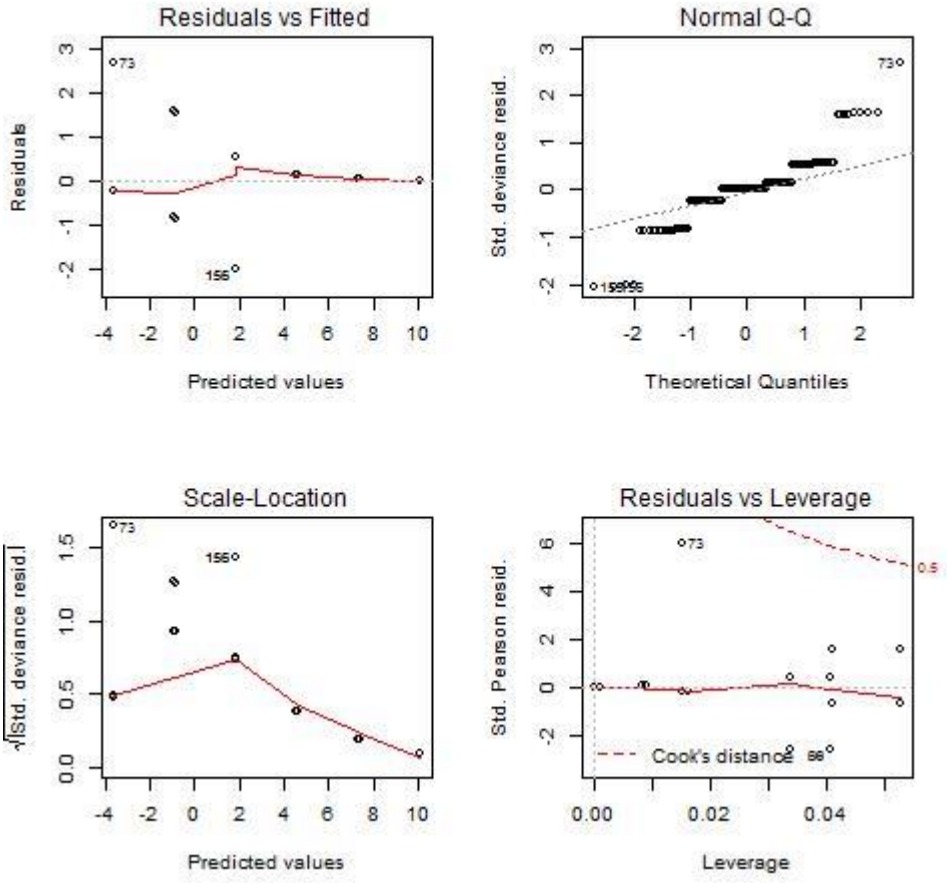

Escherichia coli EC51 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

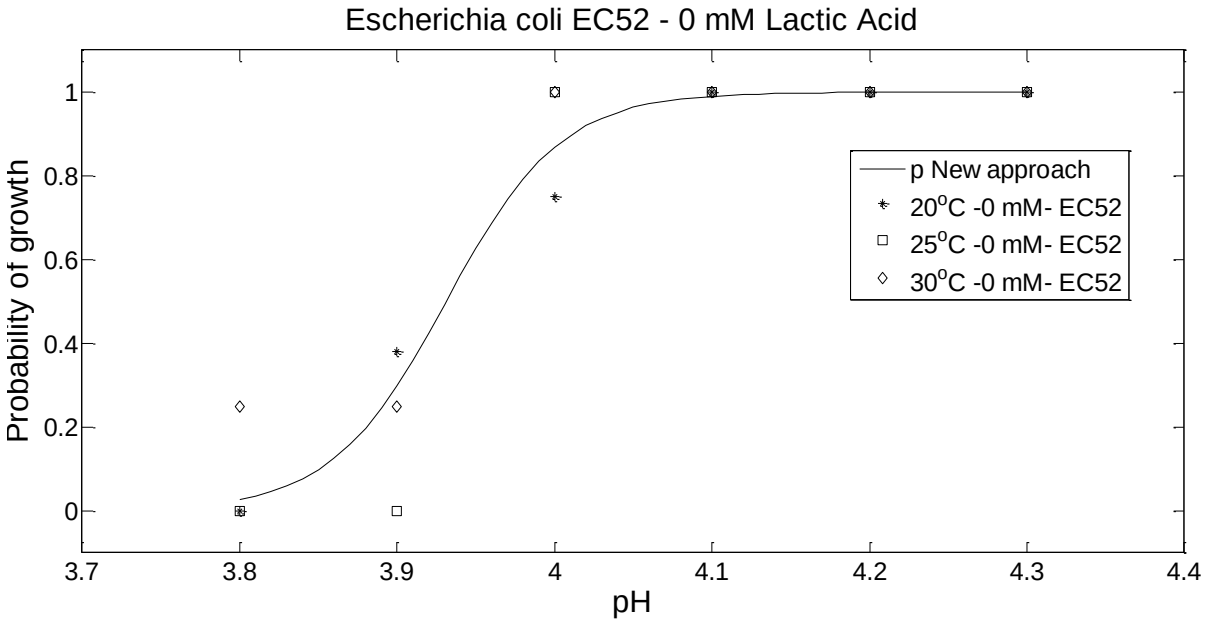
33. *E.coli* EC52 - isolated from sewerage system

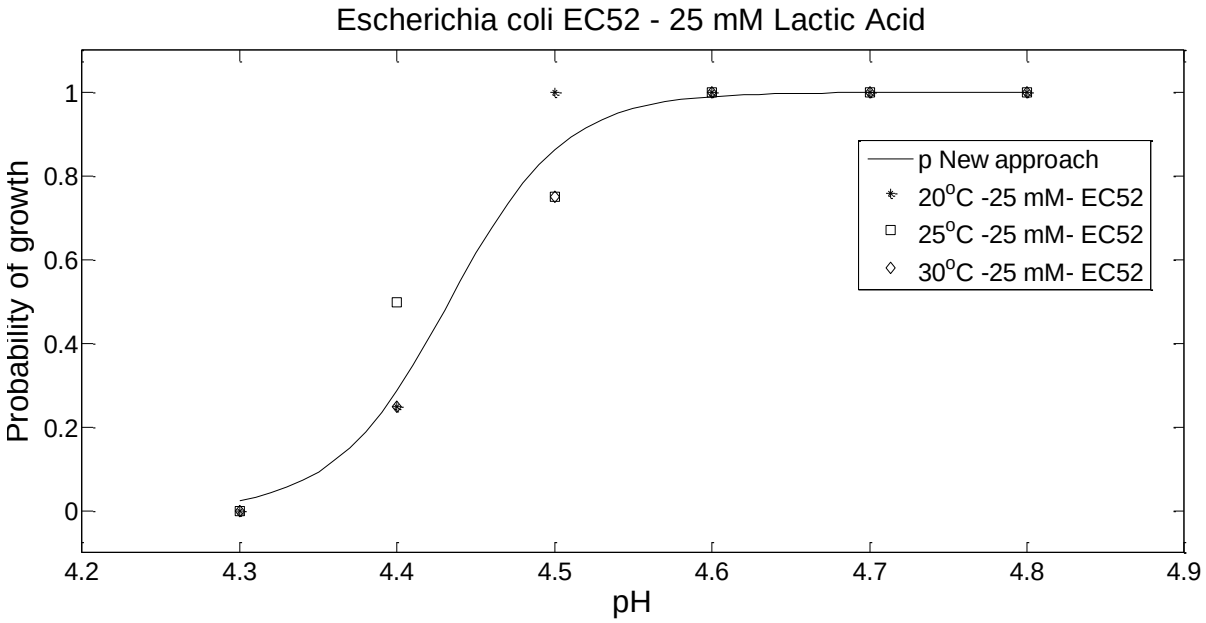
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-107.77	19.35	-5.57	0.00	-151.83	-75.06	0.00	0.00	0.00
pH	27.42	4.92	5.57	0.00	19.10	38.64	8.06E+11	1.97E+08	6.03E+16
LA	-0.55	0.10	-5.38	0.00	-0.78	-0.38	0.58	0.46	0.69

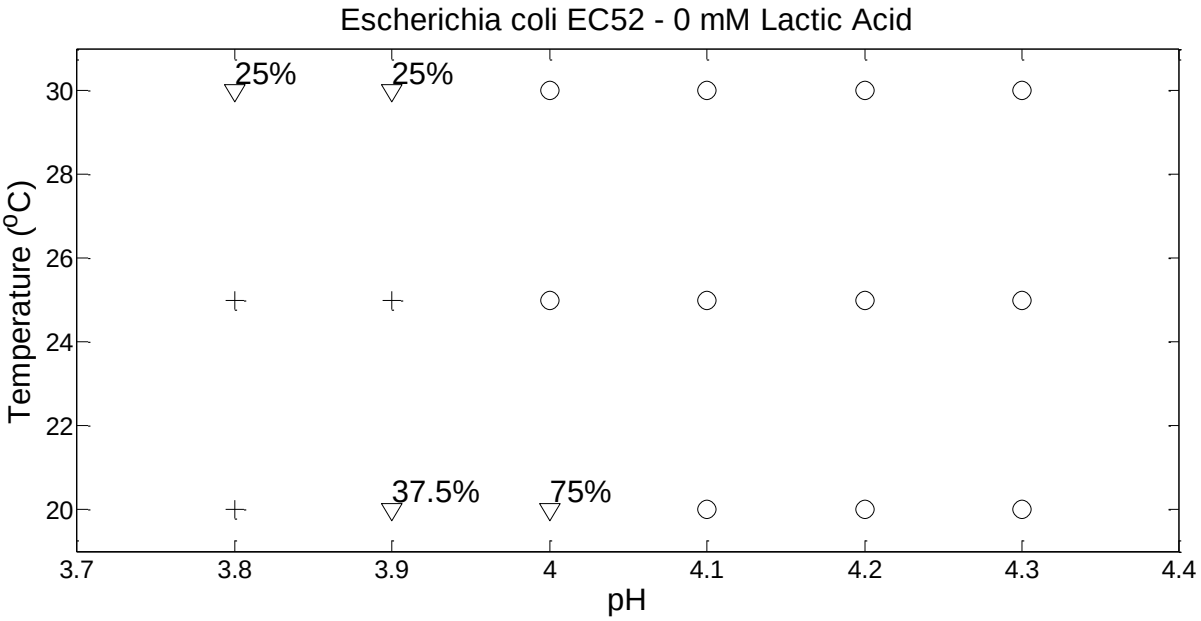
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	197.18	
pH	1	34.15	154	163.03	0.00
LA	1	97.31	153	65.72	0.00

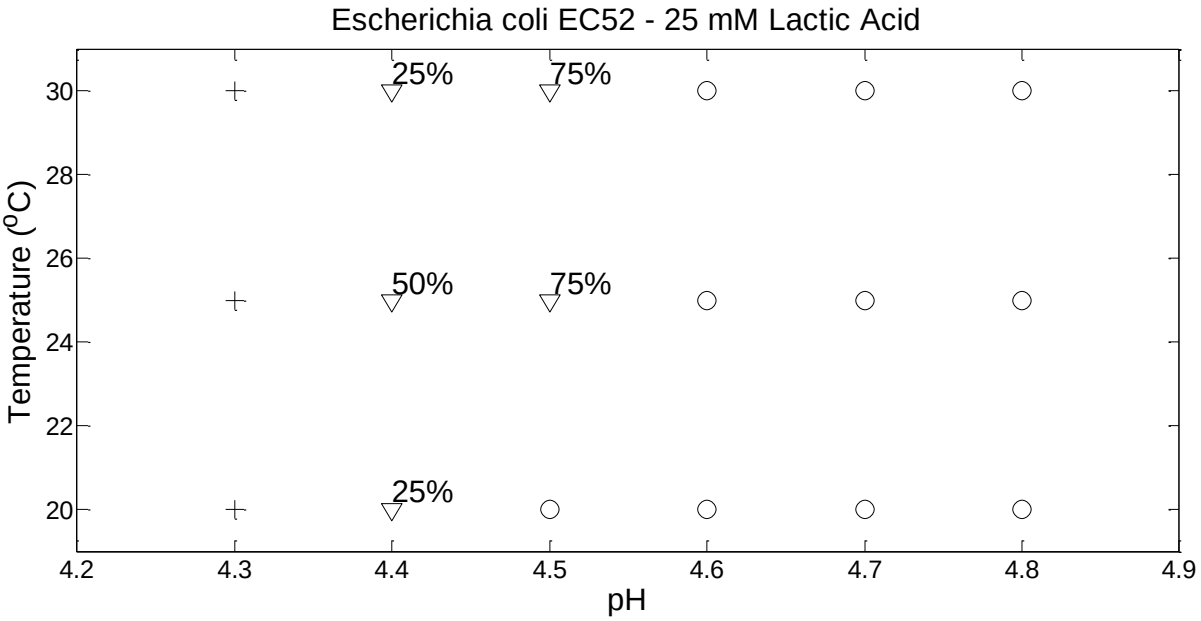
AIC	71.72
Likelihood Ratio	2.85E-29
Log-Likelihood	-32.86




Escherichia coli EC52 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC52
25°C -0 mM- EC52
30°C -0 mM- EC52
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC52 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC52
25°C -25 mM- EC52
30°C -25 mM- EC52
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC52 - 0 mM Lactic Acid
25%
25%
37.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

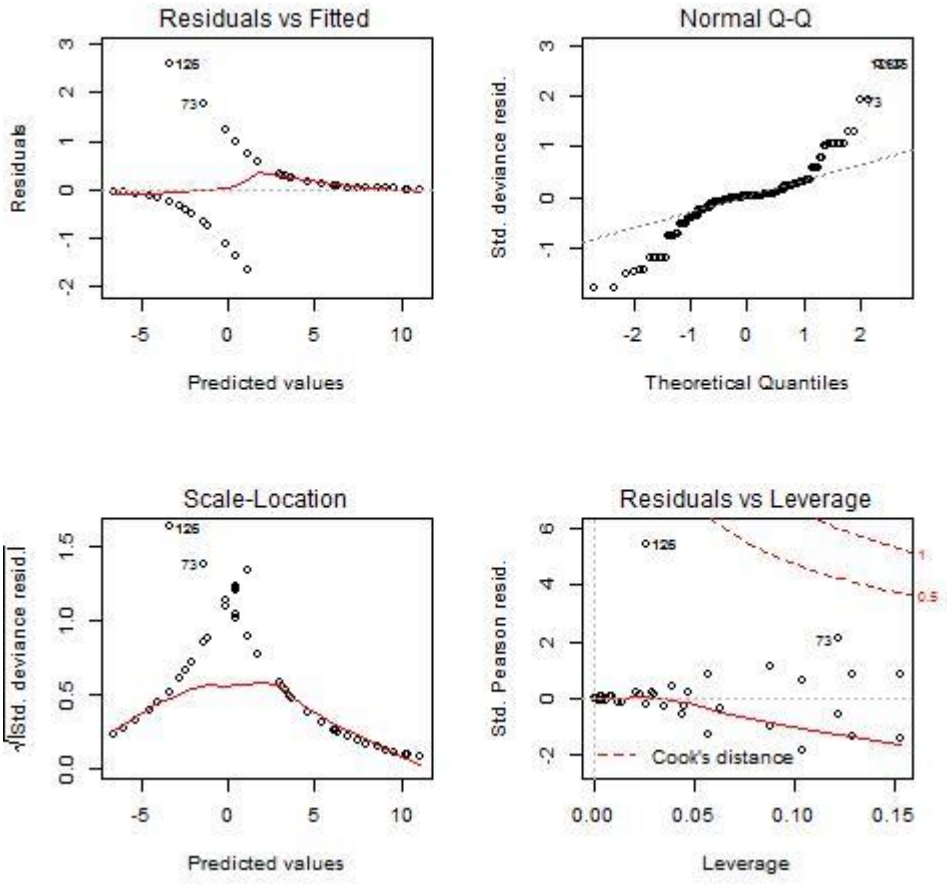

Escherichia coli EC52 - 25 mM Lactic Acid
25%
75%
50%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

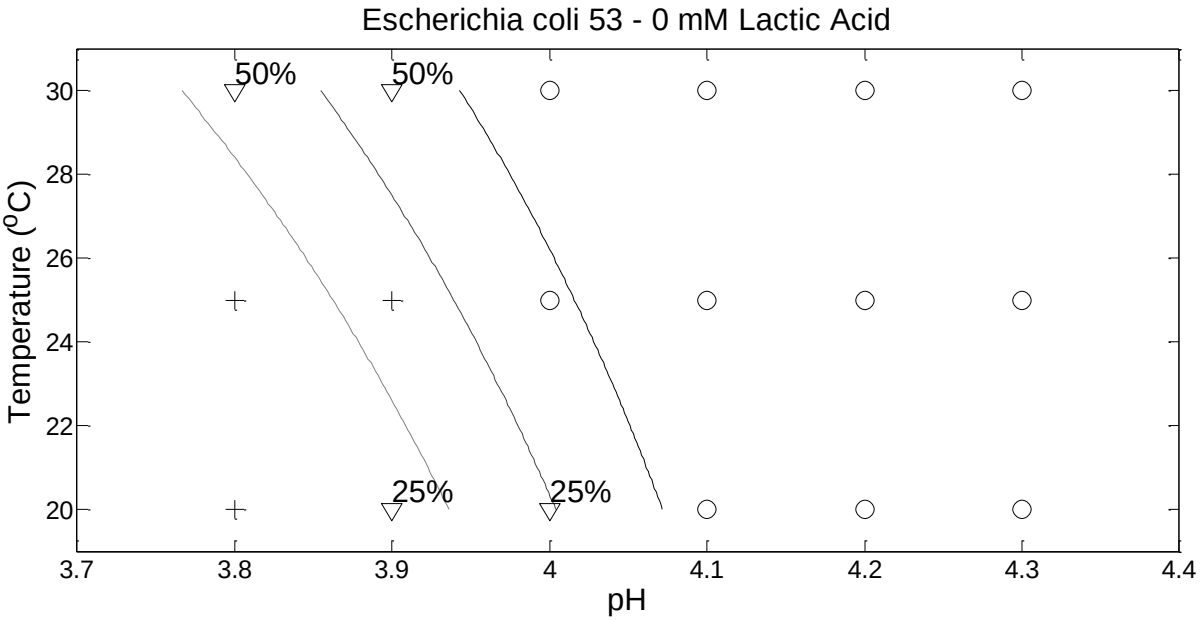
34. *E.coli* EC53 - isolated from sewerage system

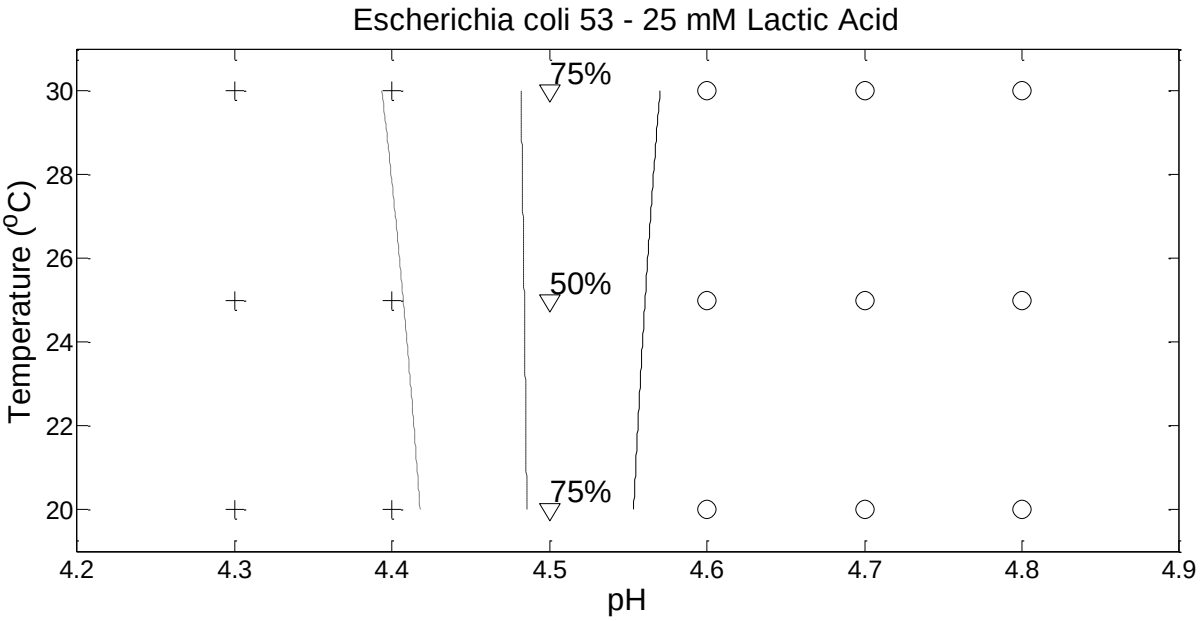
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-197.26	46.69	-4.22	0.00	-303.55	-117.47	0.00	0.00	0.00
pH	47.41	11.23	4.22	0.00	28.24	72.97	3.90E+20	1.84E+12	4.92E+31
LA	-0.62	0.12	-5.01	0.00	-0.92	-0.42	0.54	0.40	0.66
Temp	3.38	1.30	2.60	0.01	0.99	6.16	29.37	2.68	473.25
pH:Temp	-0.75	0.31	-2.45	0.01	-1.40	-0.18	0.47	0.25	0.83

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	207.88	
pH	1	28.68	154	179.19	0.00
LA	1	102.01	153	77.19	0.00
Temp	1	8.56	152	68.63	0.00
pH:Temp	1	6.90	151	61.73	0.01

AIC	71.73
Likelihood Ratio	1.36E-30
Log-Likelihood	-30.86




Escherichia coli 53 - 0 mM Lactic Acid
50%
50%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

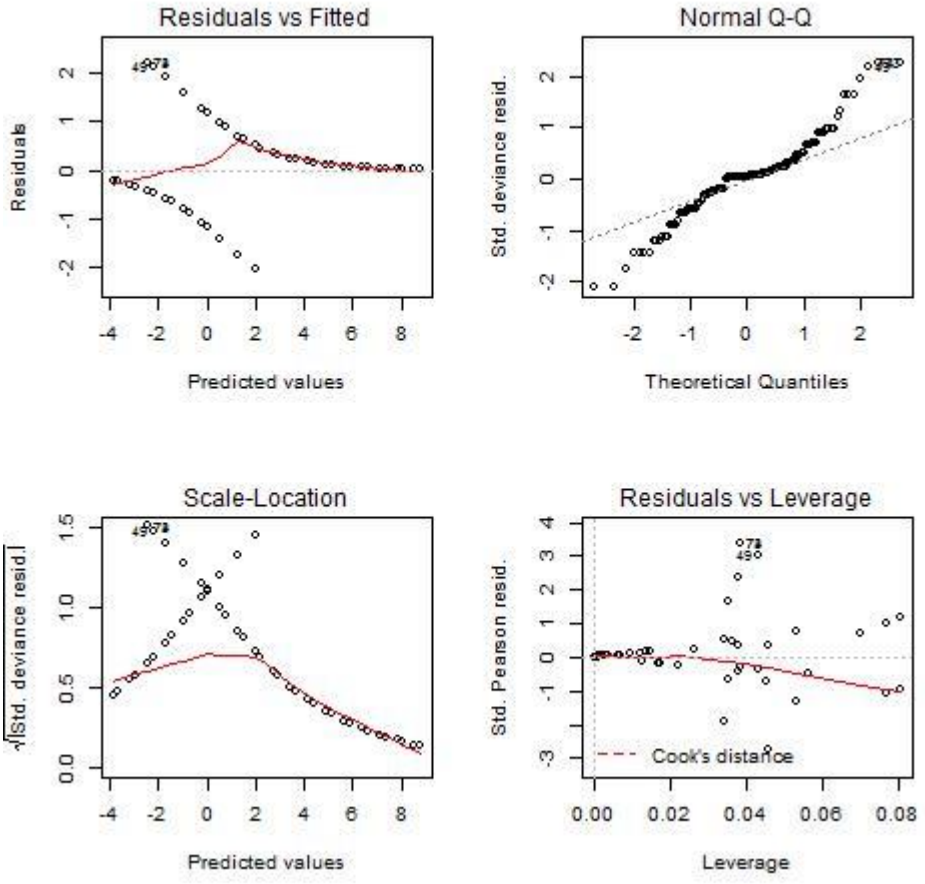

Escherichia coli 53 - 25 mM Lactic Acid
75%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

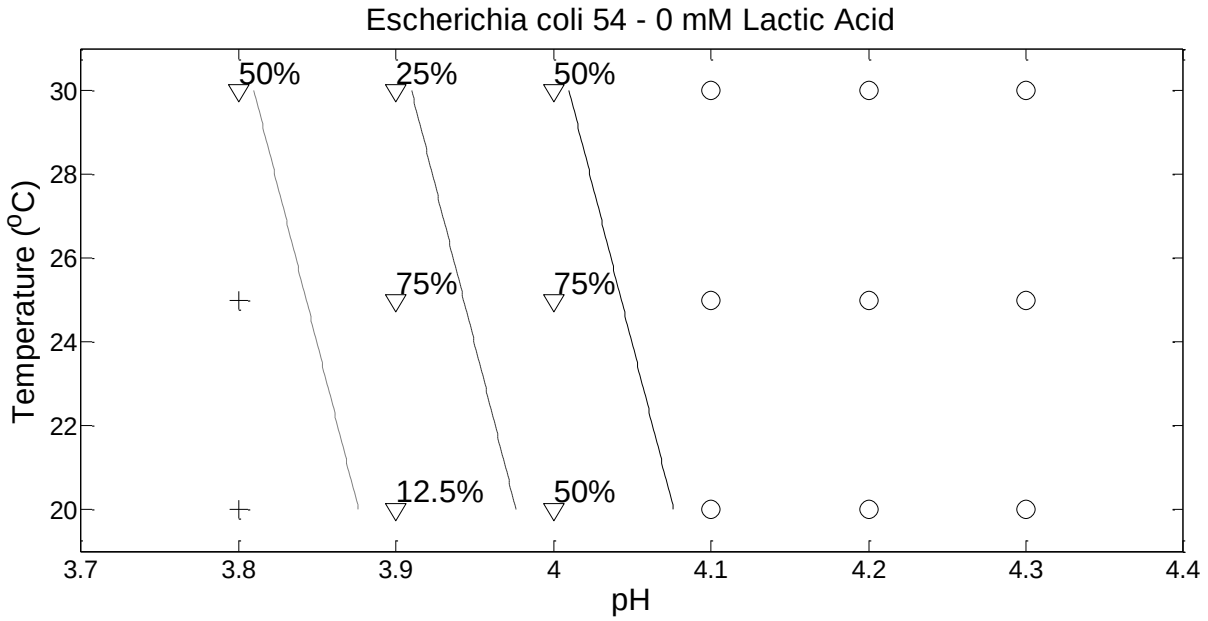
35. *E.coli* EC54 - isolated from sewerage system

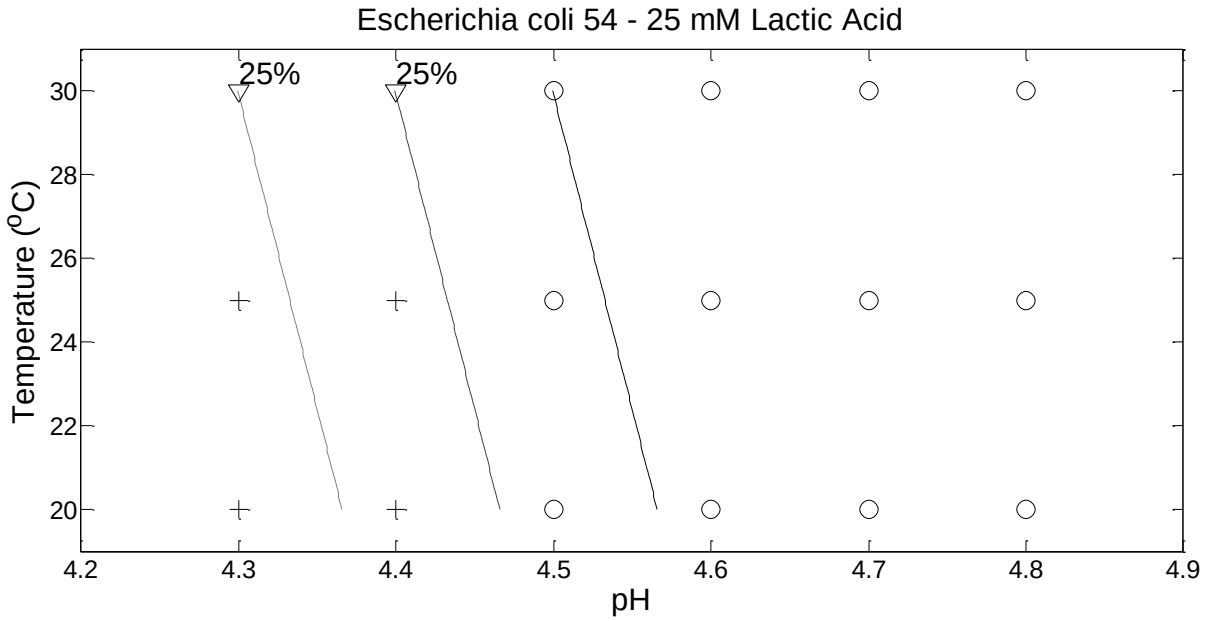
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-90.24	15.50	-5.82	0.00	-125.33	-63.82	0.00	0.00	0.00
pH	21.96	3.77	5.82	0.00	15.52	30.49	3.46E+09	5.51E+06	1.74E+13
LA	-0.43	0.08	-5.50	0.00	-0.61	-0.30	0.65	0.55	0.74
Temp	0.15	0.07	2.02	0.04	0.01	0.30	1.16	1.01	1.34

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	201.25	
pH	1	37.46	154	163.79	0.00
LA	1	80.10	153	83.69	0.00
Temp	1	4.37	152	79.31	0.04

AIC	87.31
Likelihood Ratio	2.95E-26
Log-Likelihood	-39.66




Escherichia coli 54 - 0 mM Lactic Acid
50%
25%
50%
75%
75%
12.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

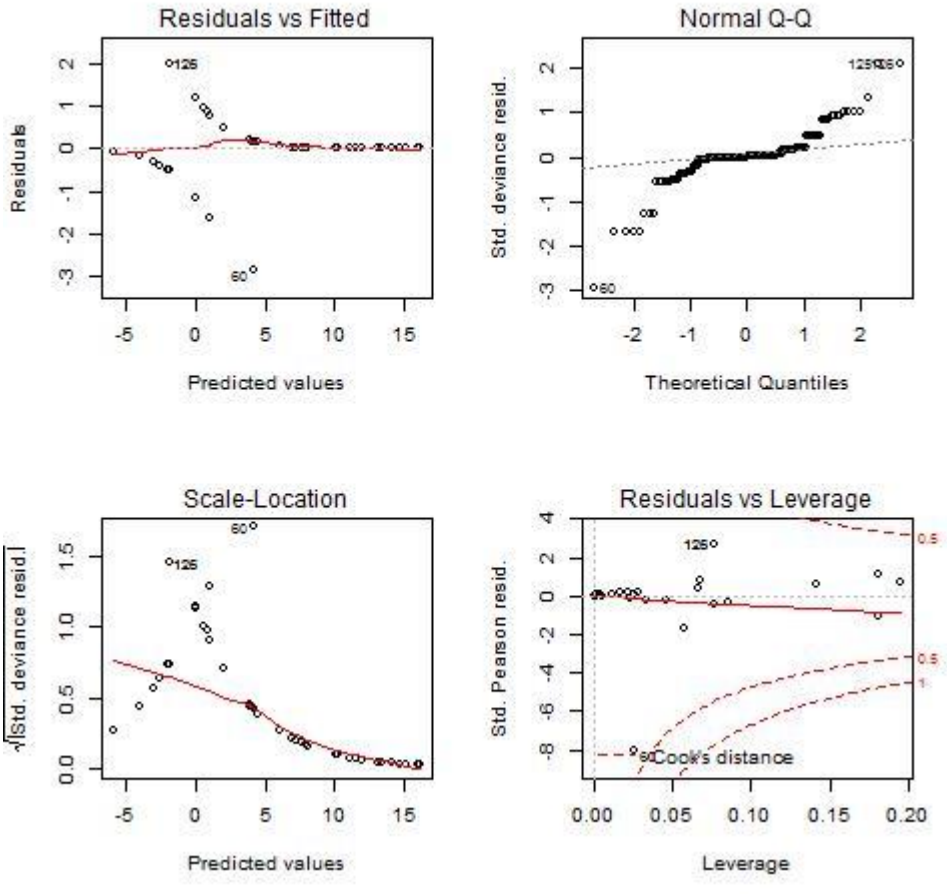

Escherichia coli 54 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

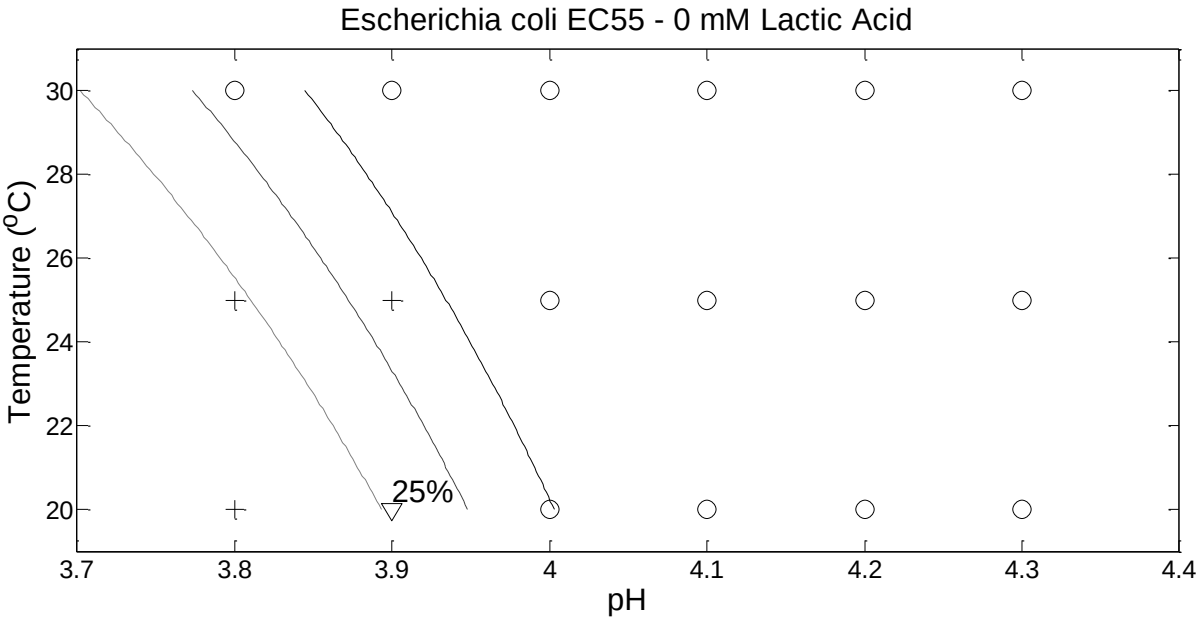
36. *E.coli* EC55 - isolated from sewerage system

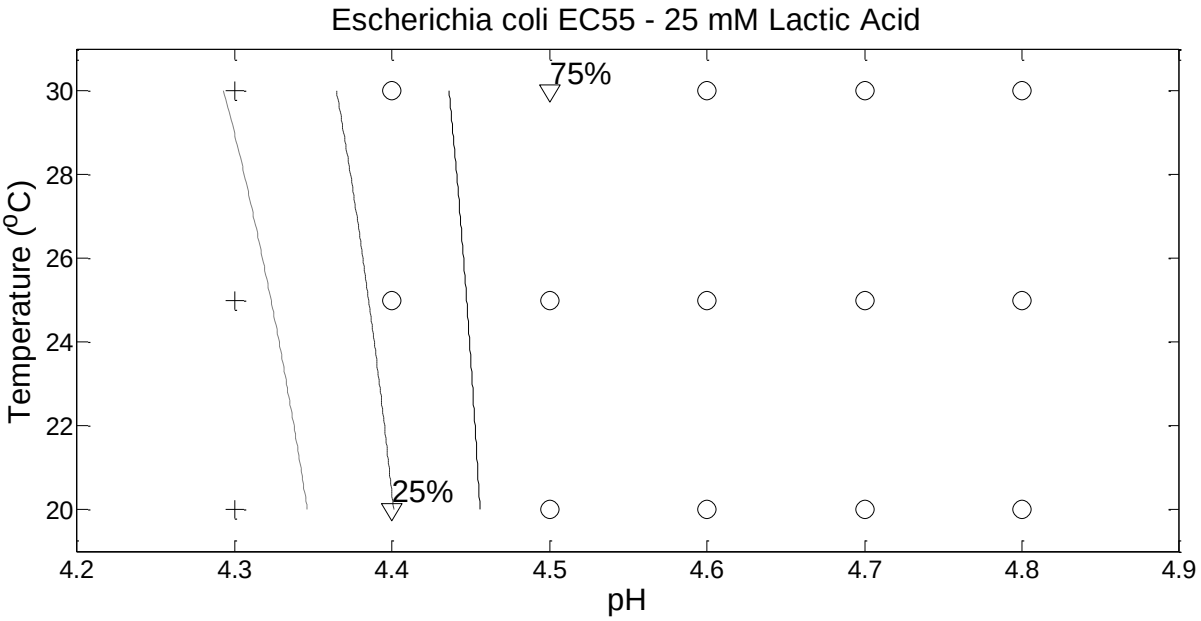
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-242.99	59.64	-4.07	0.00	-381.91	-142.18	0.00	0.00	0.00
pH	58.83	14.49	4.06	0.00	34.32	92.51	3.55E+25	8.04E+14	1.50E+40
LA	-0.73	0.16	-4.56	0.00	-1.11	-0.47	0.48	0.33	0.63
Temp	4.24	1.61	2.63	0.01	1.31	7.79	69.42	3.72	2411.23
pH:Temp	-0.94	0.38	-2.44	0.01	-1.77	-0.24	0.39	0.17	0.79

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	173.22	
pH	1	27.75	154	145.47	0.00
LA	1	74.09	153	71.38	0.00
Temp	1	16.52	152	54.86	0.00
pH:Temp	1	7.06	151	47.80	0.01

AIC	57.80
Likelihood Ratio	3.72E-26
Log-Likelihood	-23.90




Escherichia coli EC55 - 0 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
25%
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

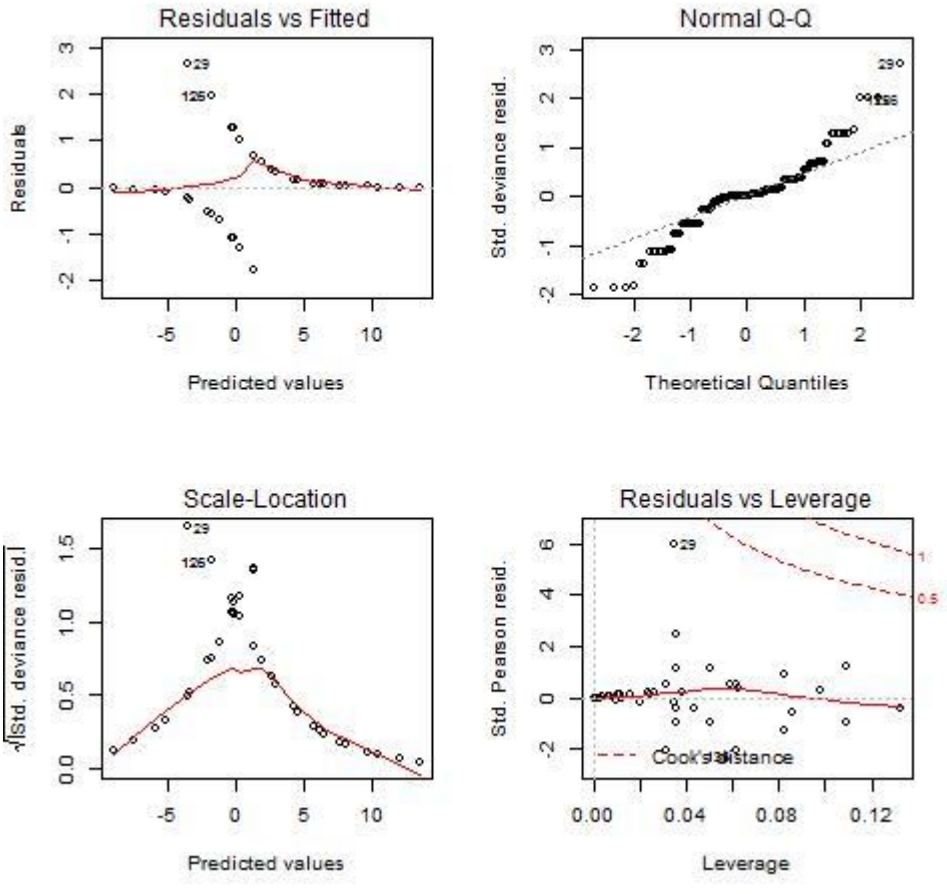

Escherichia coli EC55 - 25 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
75%
25%
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

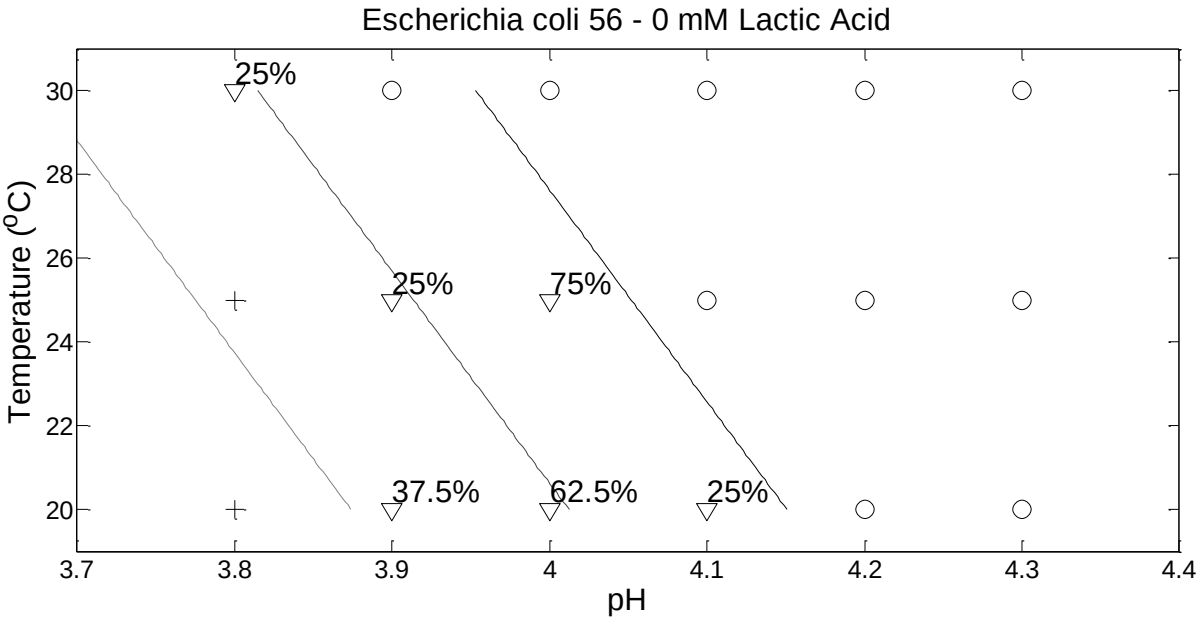
37. *E.coli* EC56 - isolated from sewerage system

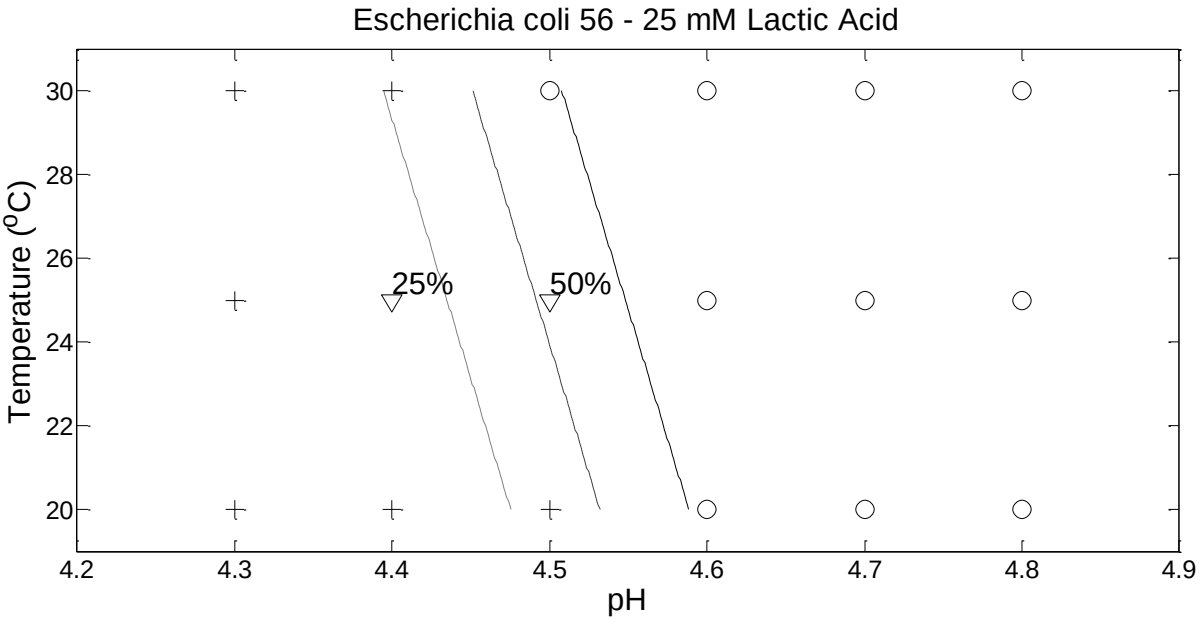
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-69.98	15.33	-4.57	0.00	-105.05	-44.12	0.00	0.00	0.00
pH	15.88	3.64	4.36	0.00	9.73	24.19	7.86E+06	1.69E+04	3.21E+10
LA	-4.49	1.95	-2.30	0.02	-9.81	-1.45	0.01	0.00	0.24
Temp	0.31	0.09	3.69	0.00	0.16	0.50	1.37	1.17	1.65
pH:LA	0.92	0.44	2.10	0.04	0.23	2.10	2.50	1.25	8.20

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	206.91	
pH	1	20.95	154	185.96	0.00
LA	1	88.61	153	97.35	0.00
Temp	1	16.91	152	80.44	0.00
pH:LA	1	7.67	151	72.77	0.01

AIC	82.77
Likelihood Ratio	5.07E-28
Log-Likelihood	-36.39




Escherichia coli 56 - 0 mM Lactic Acid
25%
25%
75%
37.5%
62.5%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

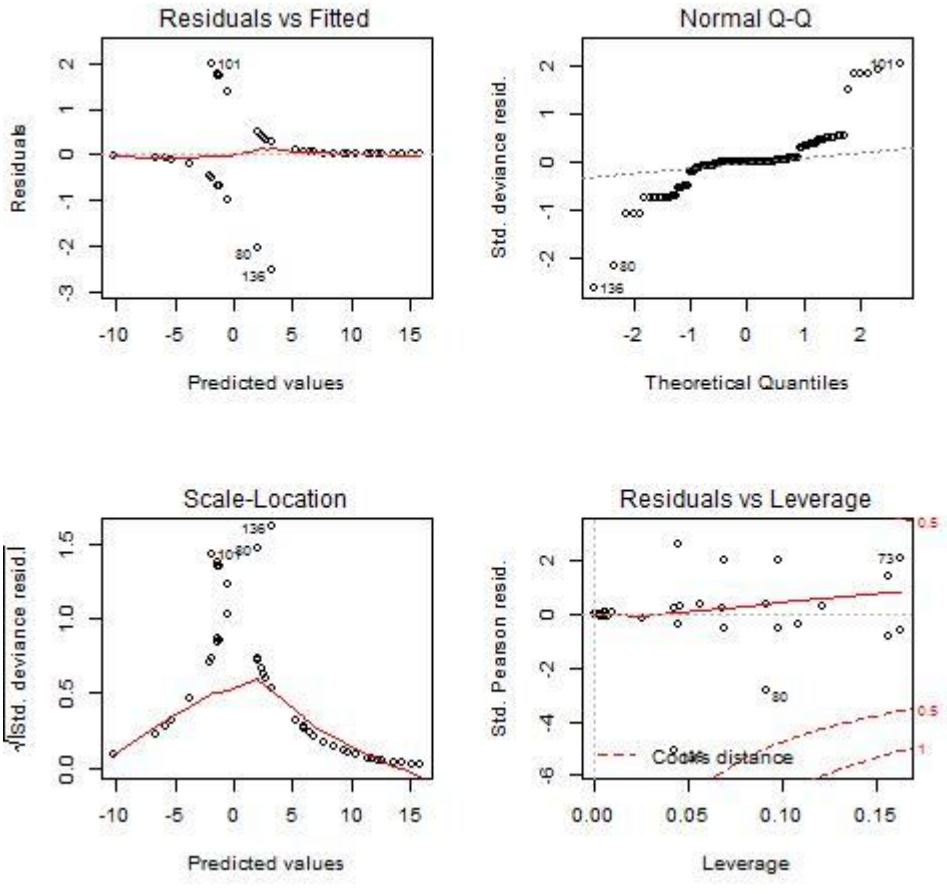

Escherichia coli 56 - 25 mM Lactic Acid
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

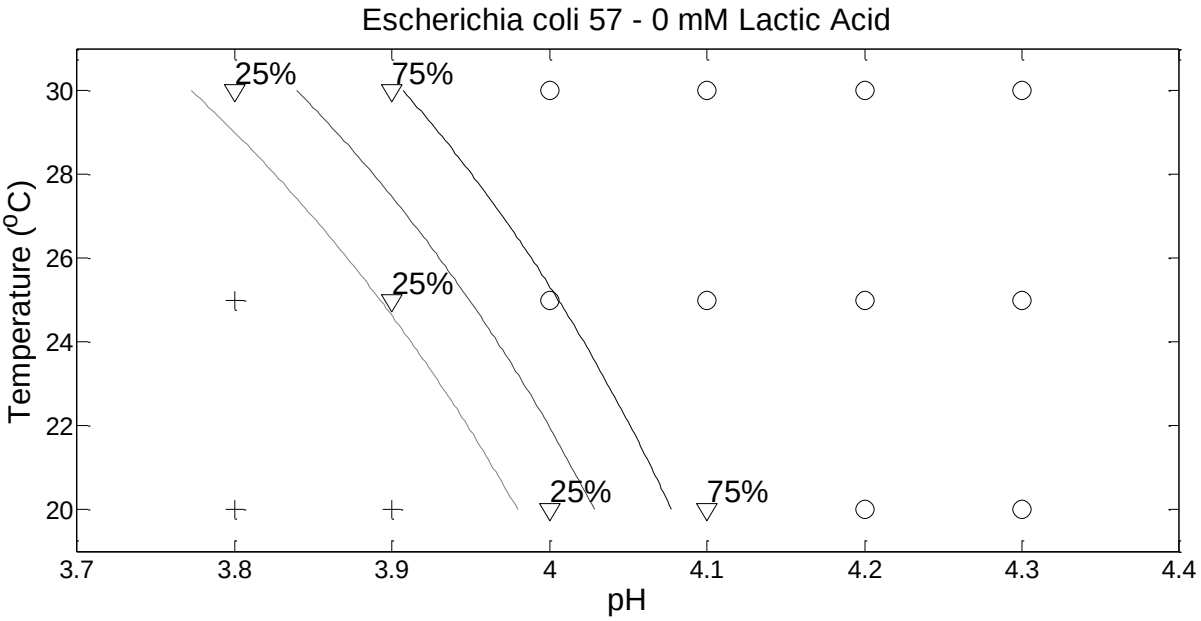
38. *E.coli* EC57 - isolated from sewerage system

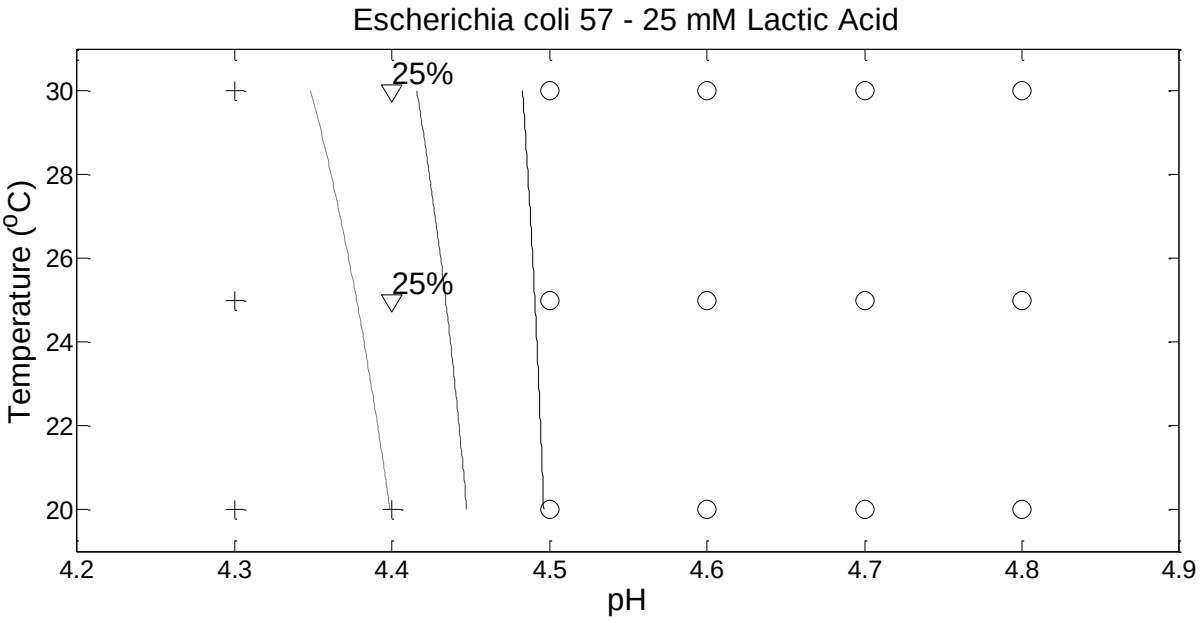
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-292.19	70.07	-4.17	0.00	-458.34	-175.20	0.00	0.00	0.00
pH	69.47	16.80	4.14	0.00	41.47	109.40	1.48E+30	1.02E+18	3.24E+47
LA	-0.75	0.16	-4.60	0.00	-1.14	-0.49	0.47	0.32	0.62
Temp	5.56	1.87	2.97	0.00	2.27	9.80	258.54	9.72	1.80E+04
pH:Temp	-1.23	0.44	-2.79	0.01	-2.22	-0.45	0.29	0.11	0.64

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	203.68	
pH	1	43.36	154	160.32	0.00
LA	1	86.21	153	74.11	0.00
Temp	1	19.91	152	54.20	0.00
pH:Temp	1	10.51	151	43.70	0.00

AIC	53.70
Likelihood Ratio	1.47E-33
Log-Likelihood	-21.85




Escherichia coli 57 - 0 mM Lactic Acid
25%
75%
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

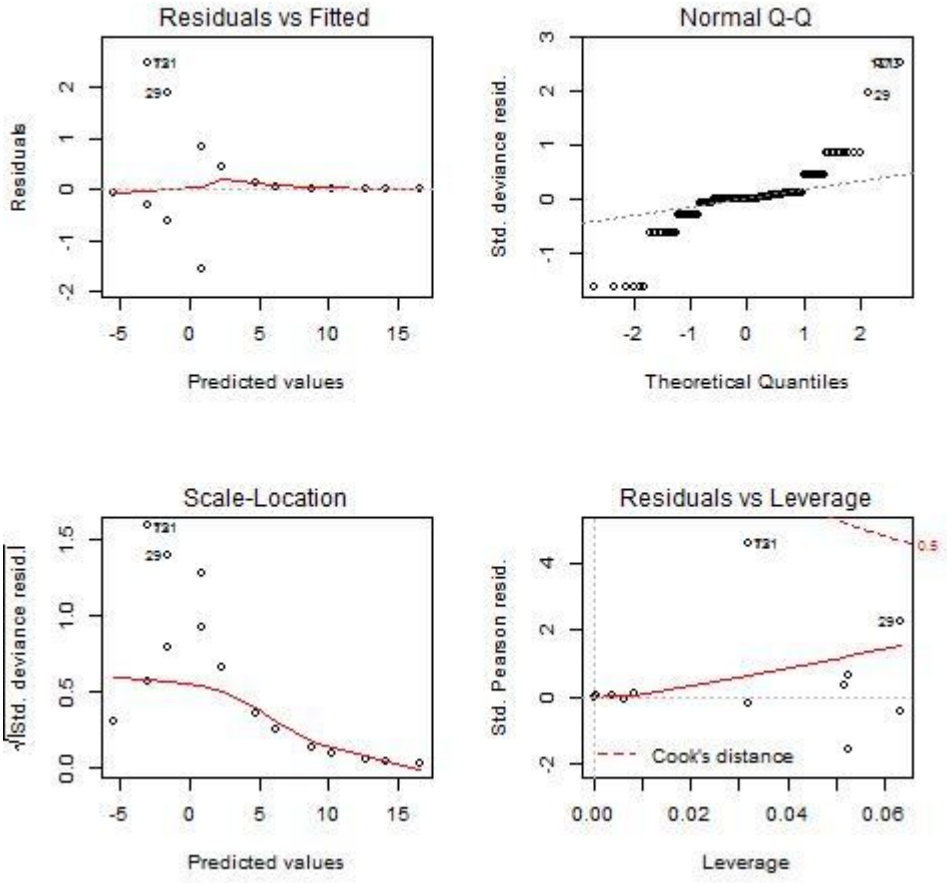

Escherichia coli 57 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

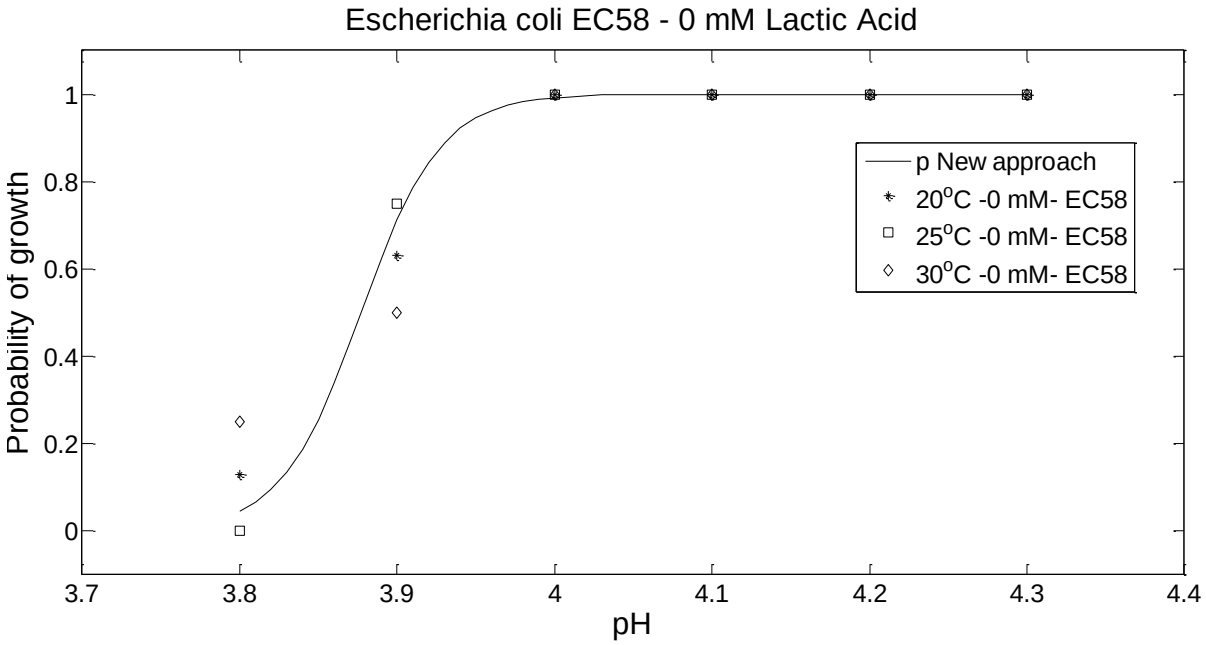
39. *E.coli* EC58 - isolated from sewerage system

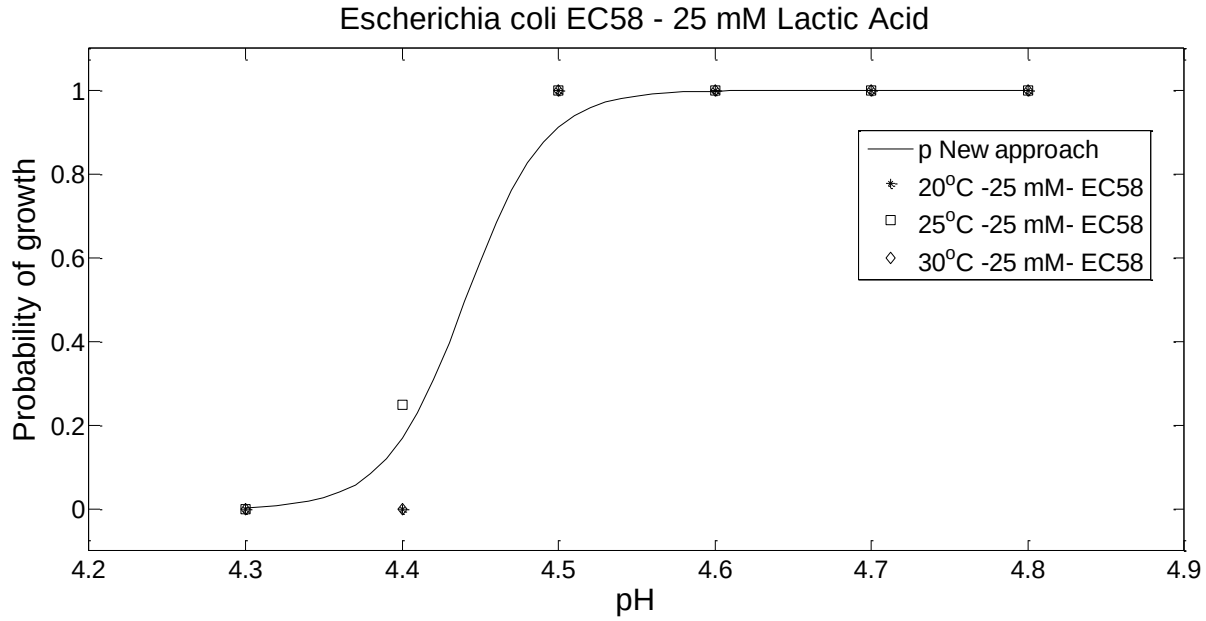
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-152.89	31.64	-4.83	0.00	-229.51	-101.28	0.00	0.00	0.00
pH	39.43	8.14	4.84	0.00	26.14	59.12	1.34E+17	2.26E+11	4.73E+25
LA	-0.89	0.18	-4.89	0.00	-1.32	-0.59	0.41	0.27	0.56

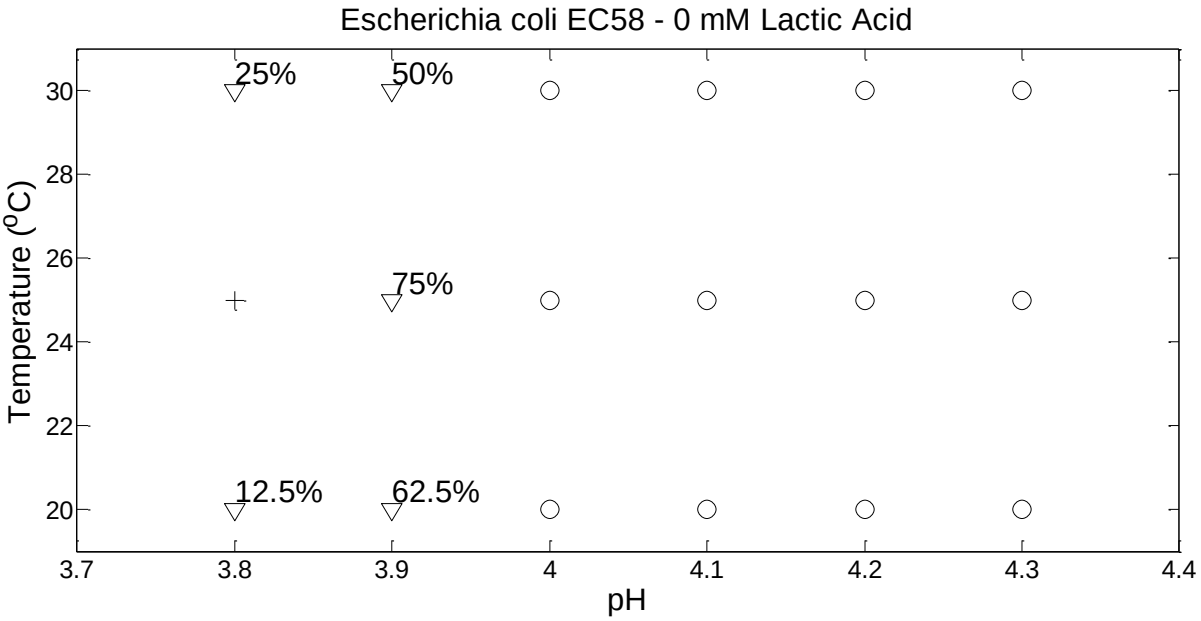
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	183.70	
pH	1	17.18	154	166.52	0.00
LA	1	120.93	153	45.59	0.00

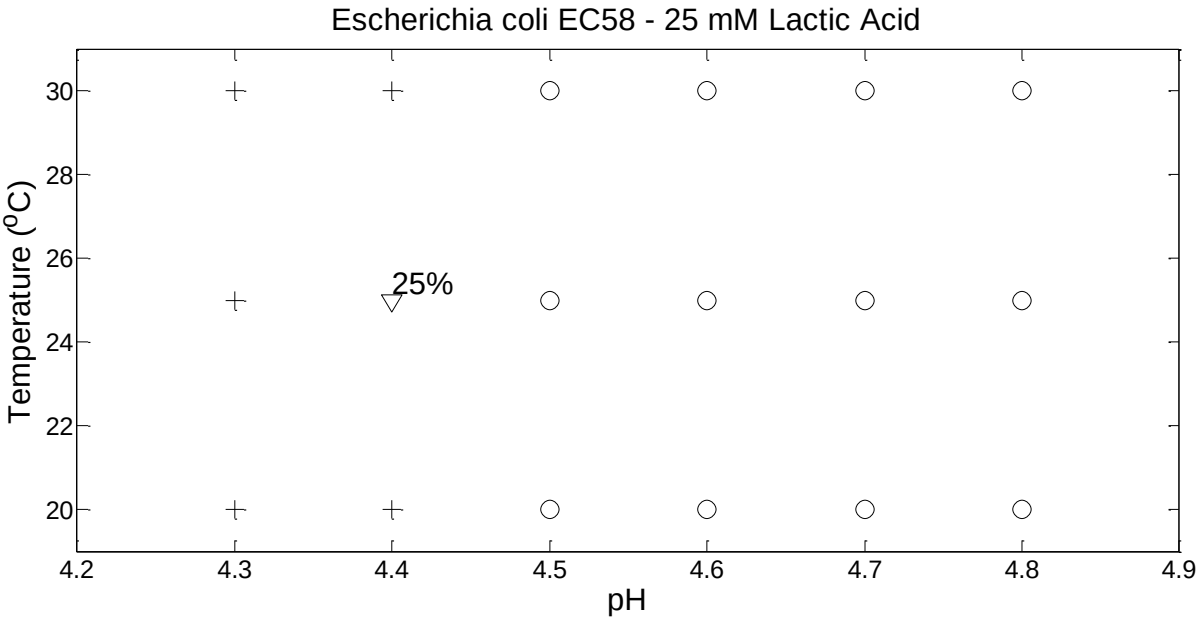
AIC	51.59
Likelihood Ratio	1.02E-30
Log-Likelihood	-22.79




Escherichia coli EC58 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC58
25°C -0 mM- EC58
30°C -0 mM- EC58
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC58 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC58
25°C -25 mM- EC58
30°C -25 mM- EC58
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC58 - 0 mM Lactic Acid
25%
50%
75%
12.5%
62.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

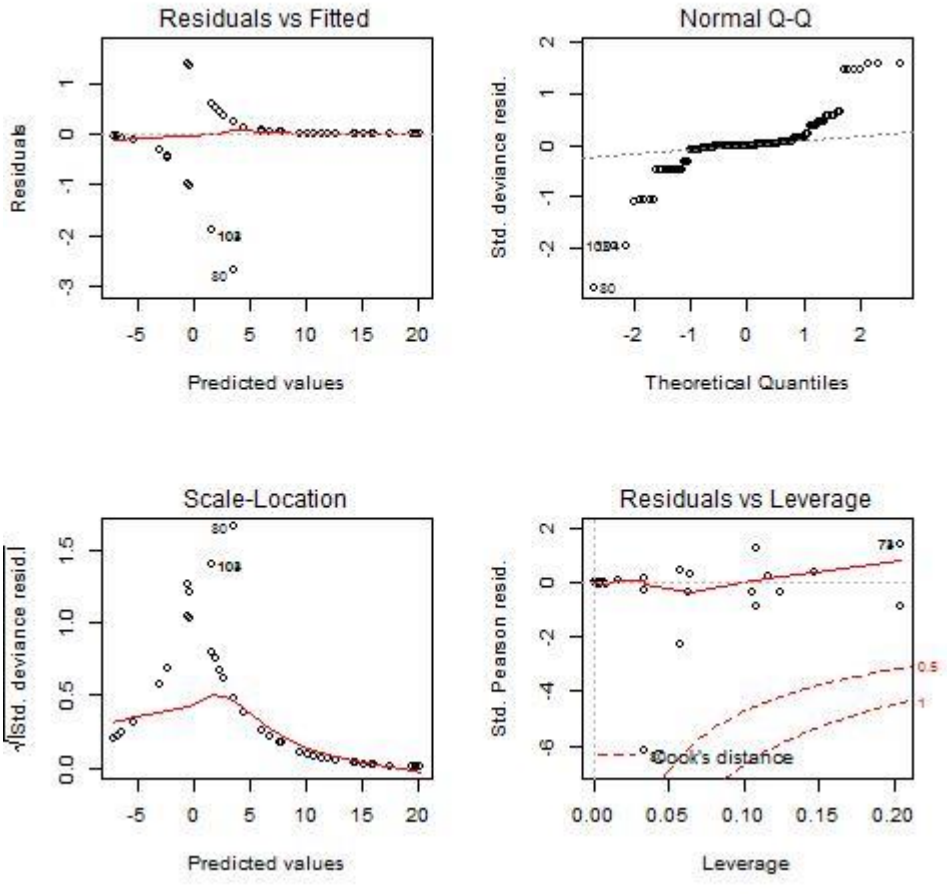

Escherichia coli EC58 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

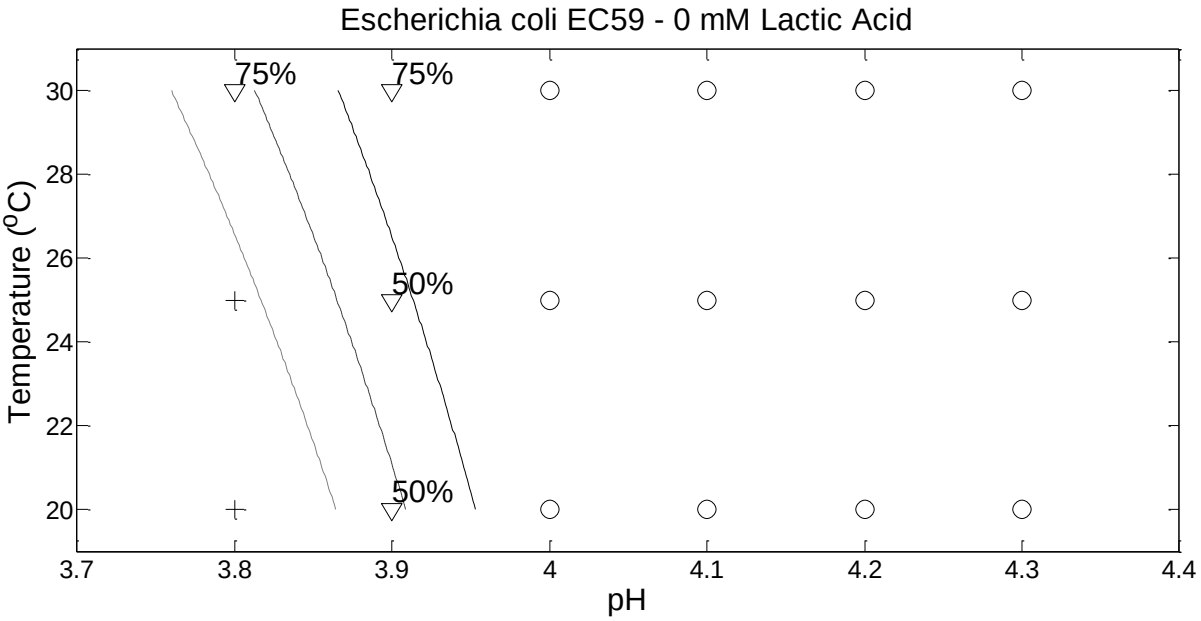
40. *E.coli* EC59 - isolated from sewerage system

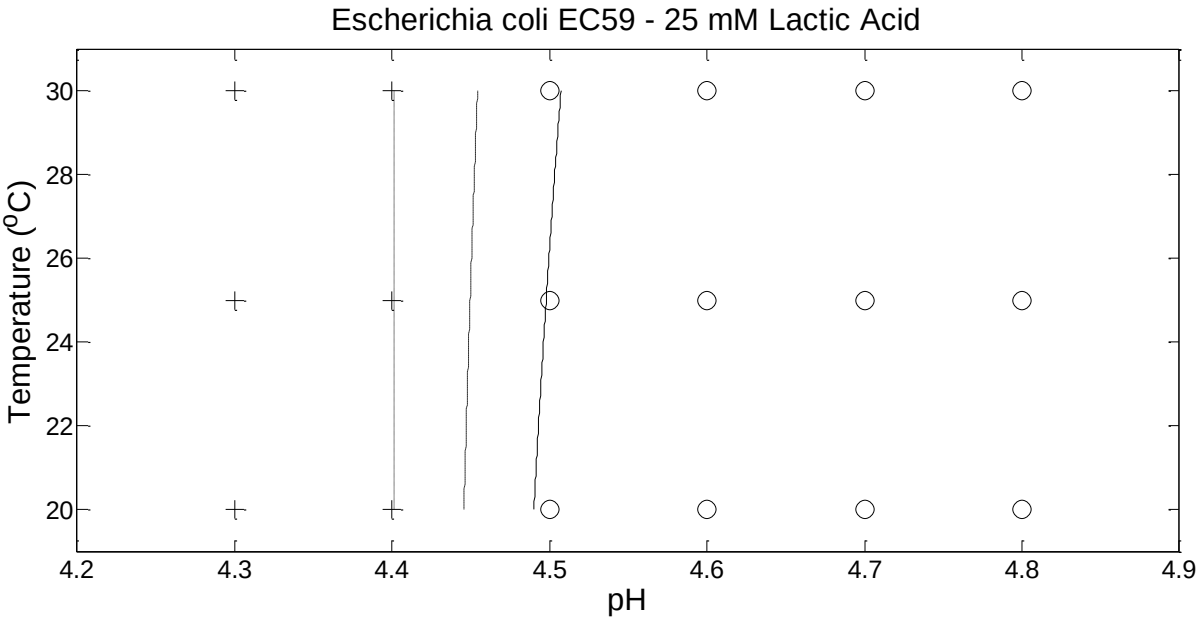
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-264.75	69.56	-3.81	0.00	-438.82	-152.59	0.00	0.00	0.00
pH	65.70	17.27	3.80	0.00	37.98	109.13	3.41E+28	3.13E+16	2.48E+47
LA	-1.06	0.24	-4.40	0.00	-1.65	-0.68	0.35	0.19	0.51
Temp	3.55	1.63	2.17	0.03	0.66	7.34	34.97	1.93	1533.32
pH:Temp	-0.81	0.40	-2.04	0.04	-1.72	-0.11	0.45	0.18	0.90

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	185.60	
pH	1	15.75	154	169.85	0.00
LA	1	120.14	153	49.71	0.00
Temp	1	5.34	152	44.37	0.02
pH:Temp	1	5.20	151	39.17	0.02

AIC	49.17
Likelihood Ratio	1.19E-30
Log-Likelihood	-19.59




Escherichia coli EC59 - 0 mM Lactic Acid
75%
75%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

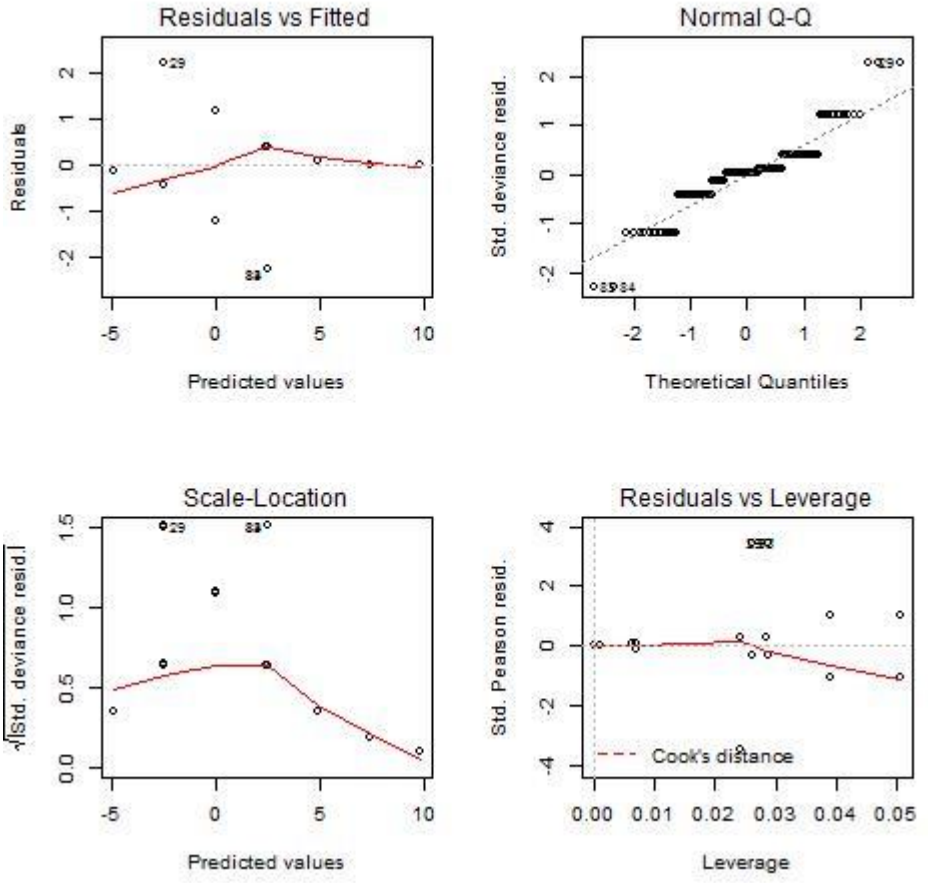

Escherichia coli EC59 - 25 mM Lactic Acid
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

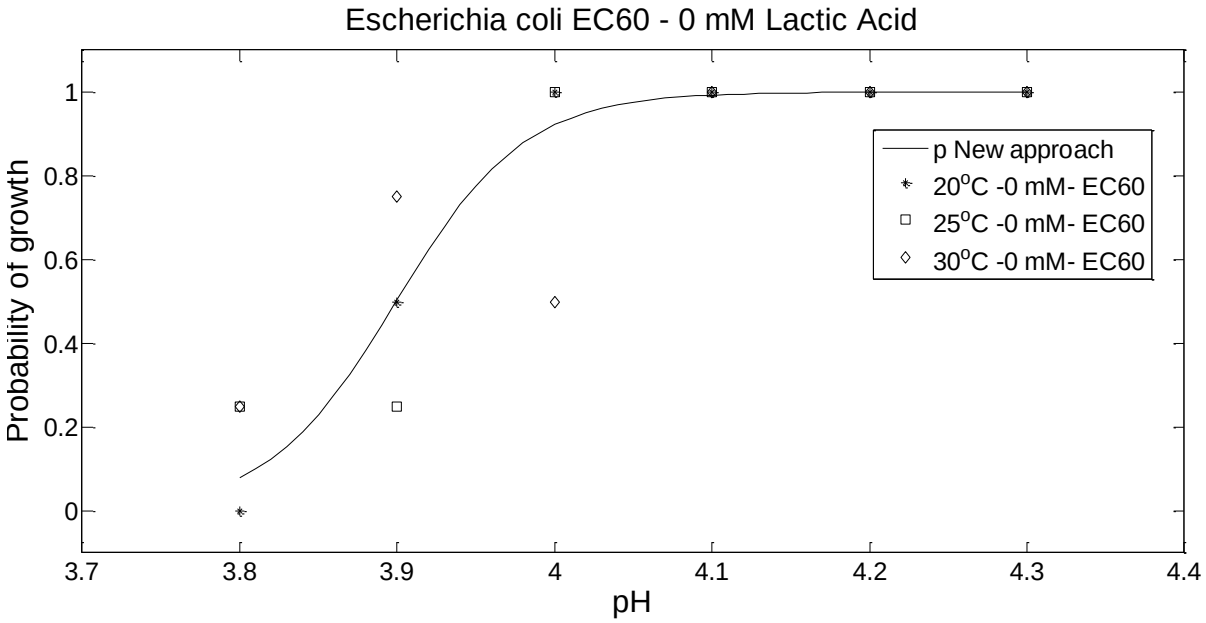
41. *E.coli* EC60 - isolated from sewerage system

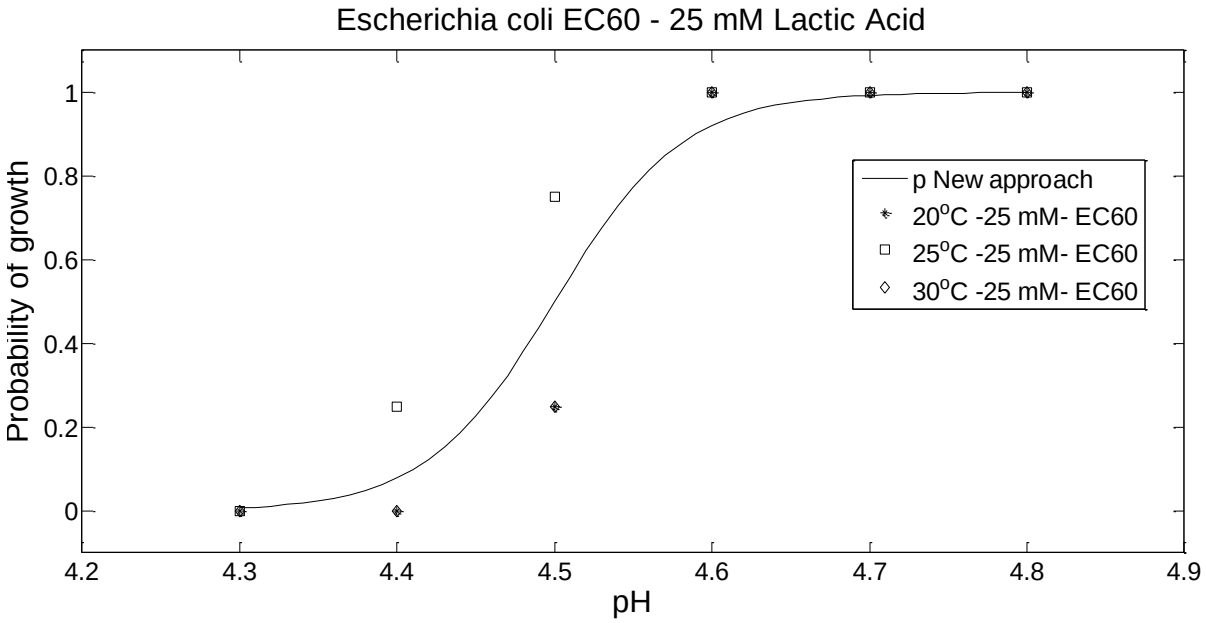
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-95.73	17.02	-5.62	0.00	-135.18	-67.09	0.00	0.00	0.00
pH	24.55	4.36	5.63	0.00	17.22	34.66	4.60E+10	3.00E+07	1.13E+15
LA	-0.59	0.11	-5.51	0.00	-0.84	-0.41	0.55	0.43	0.66

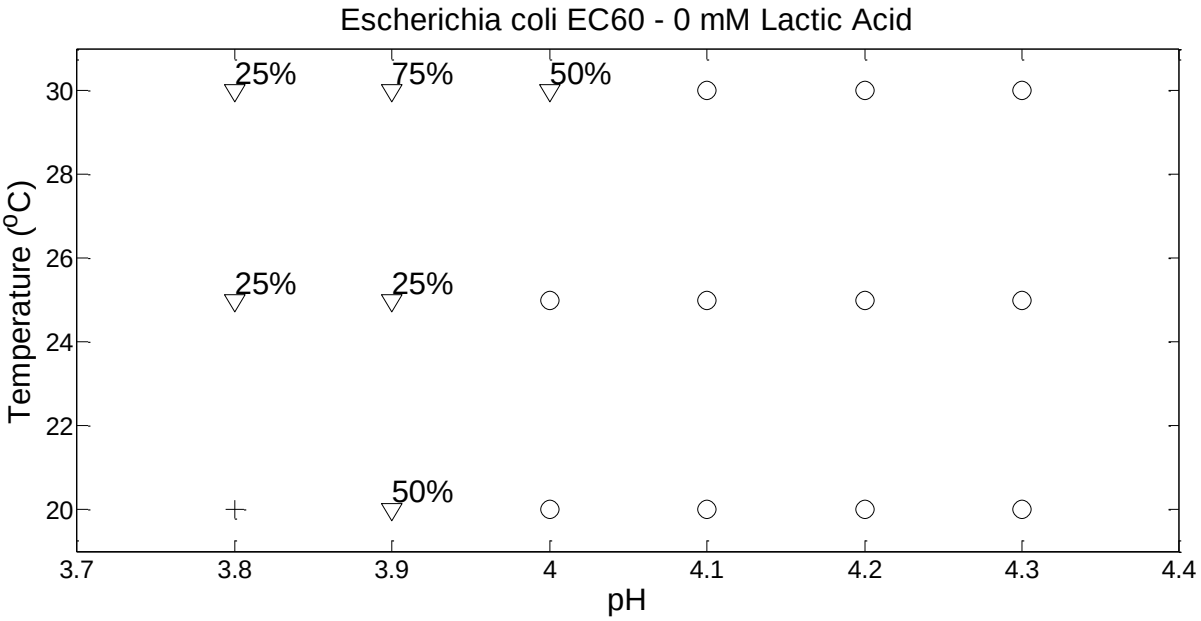
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	201.25	
pH	1	13.44	154	187.81	0.00
LA	1	114.66	153	73.15	0.00

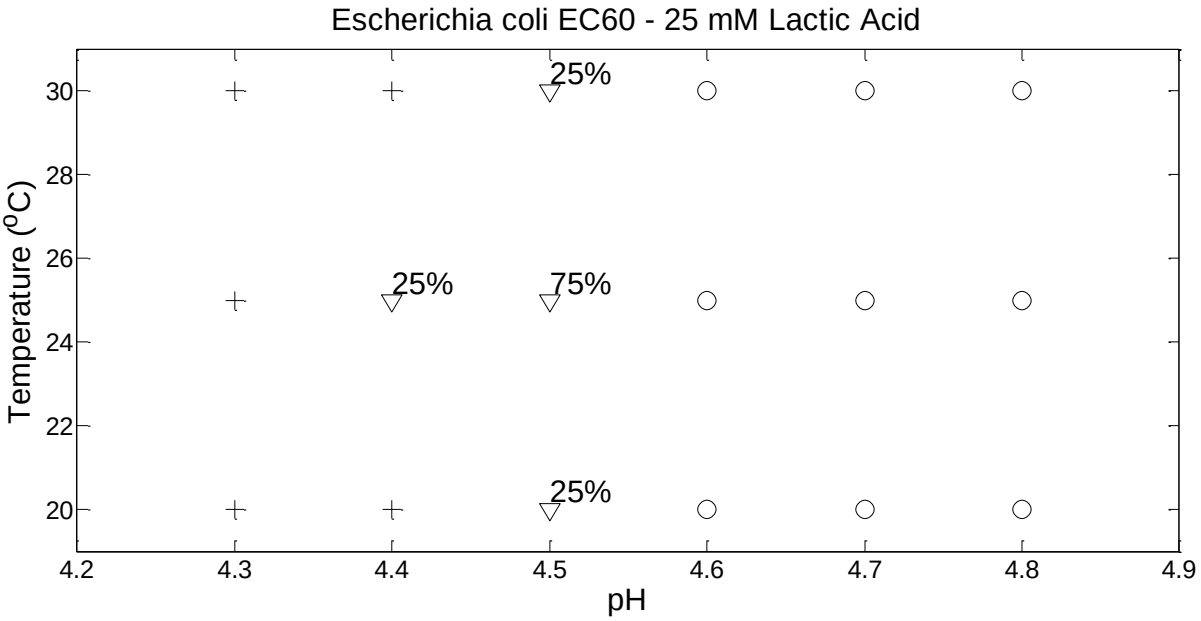
AIC	79.15
Likelihood Ratio	1.53E-28
Log-Likelihood	-36.58




Escherichia coli EC60 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC60
25°C -0 mM- EC60
30°C -0 mM- EC60
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC60 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC60
25°C -25 mM- EC60
30°C -25 mM- EC60
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC60 - 0 mM Lactic Acid
25%
75%
50%
25%
25%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

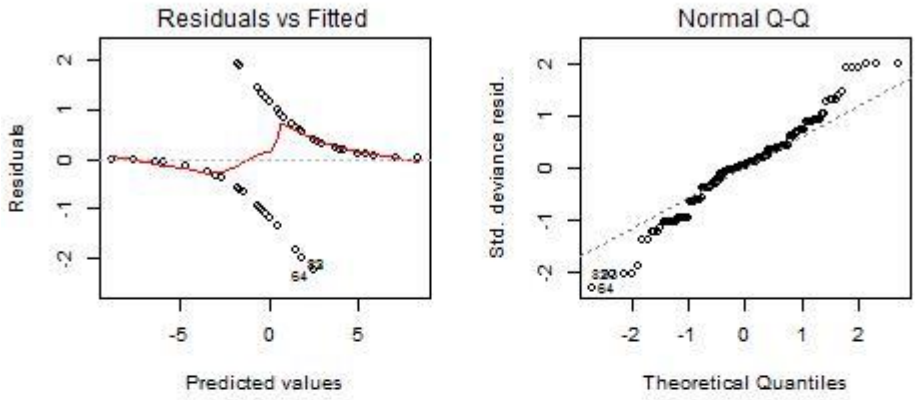

Escherichia coli EC60 - 25 mM Lactic Acid
25%
25%
75%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

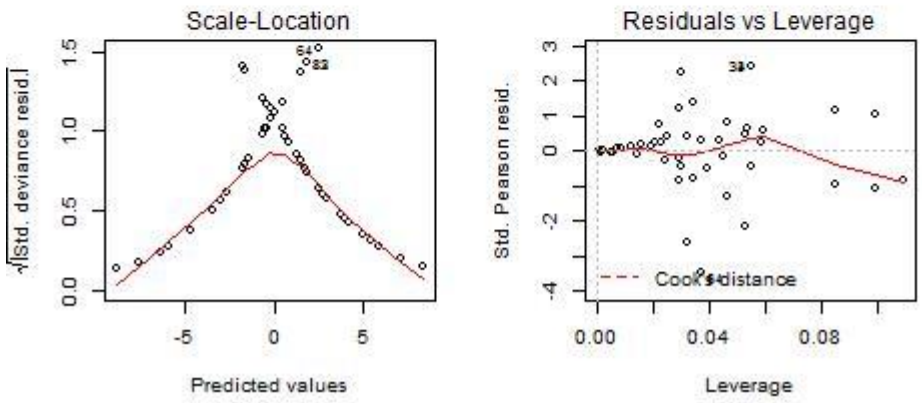
42. E.coli EC61 - isolated from sewerage system

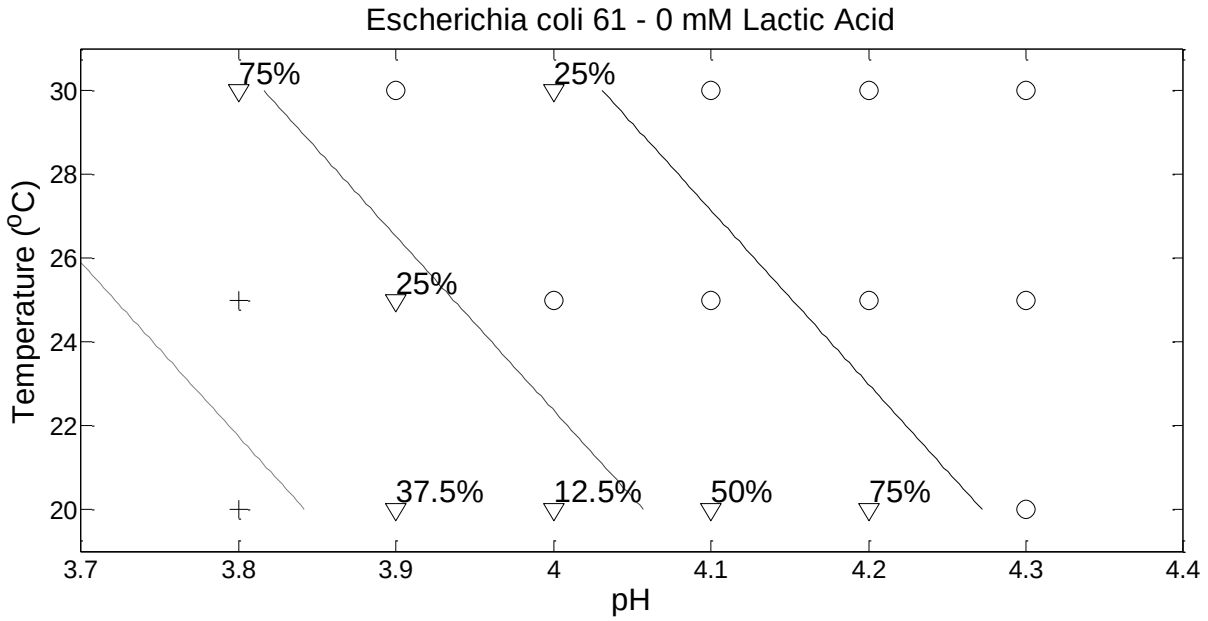
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-46.38	9.88	-4.69	0.00	-68.14	-28.95	0.00	0.00	0.00
pH	10.22	2.34	4.38	0.00	6.09	15.35	2.74E+04	4.39E+02	4.66E+06
LA	-3.78	1.36	-2.77	0.01	-7.02	-1.57	0.02	0.00	0.21
Temp	0.25	0.07	3.60	0.00	0.12	0.39	1.28	1.13	1.48
pH:LA	0.77	0.30	2.56	0.01	0.28	1.49	2.17	1.32	4.42

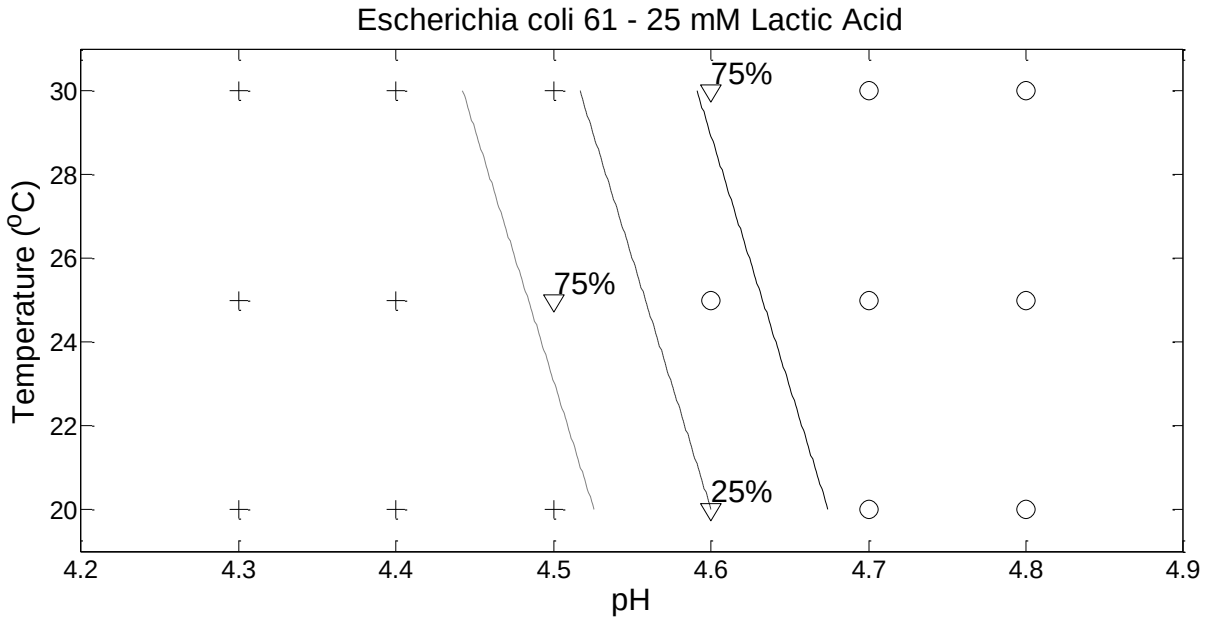
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.00	
pH	1	12.80	154	202.20	0.00
LA	1	80.32	153	121.88	0.00
Temp	1	13.61	152	108.27	0.00
pH:LA	1	11.40	151	96.87	0.00

AIC	106.87
Likelihood Ratio	1.34E-24
Log-Likelihood	-48.43






Escherichia coli 61 - 0 mM Lactic Acid
75%
25%
25%
37.5%
12.5%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

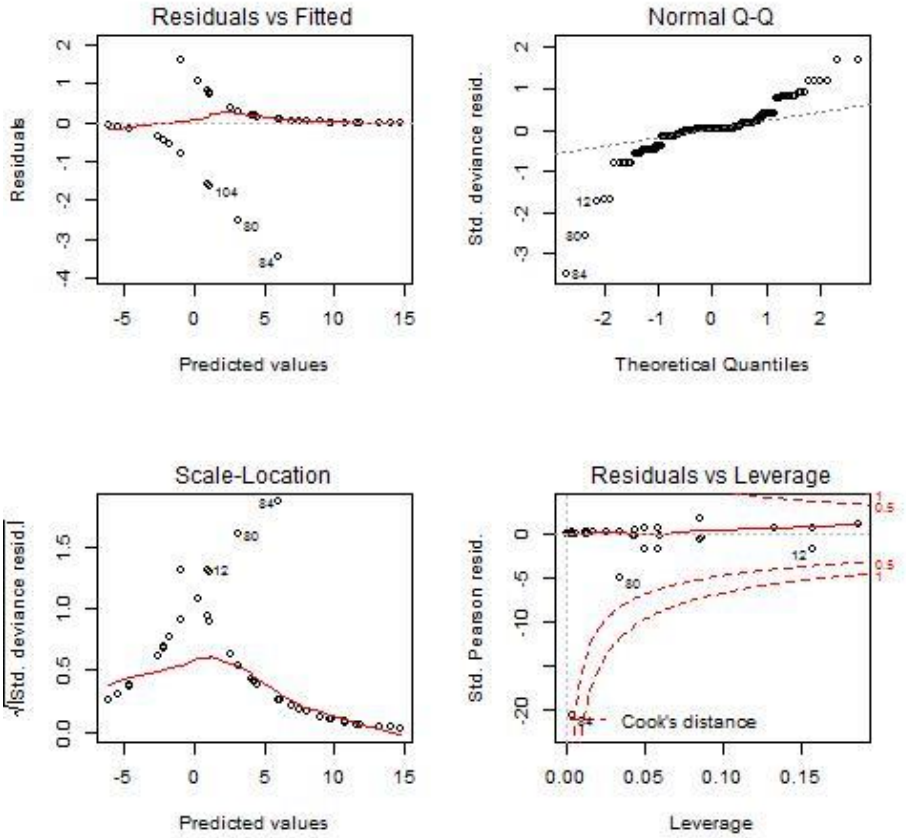

Escherichia coli 61 - 25 mM Lactic Acid
75%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

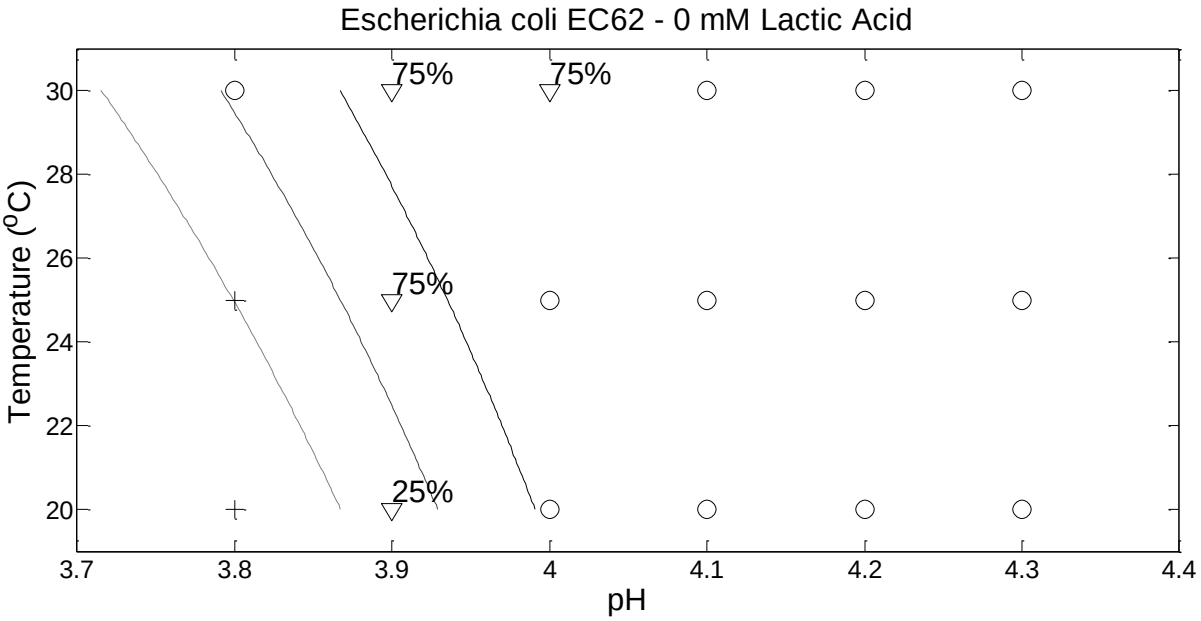
43. *E.coli* EC62 - isolated from sewerage system

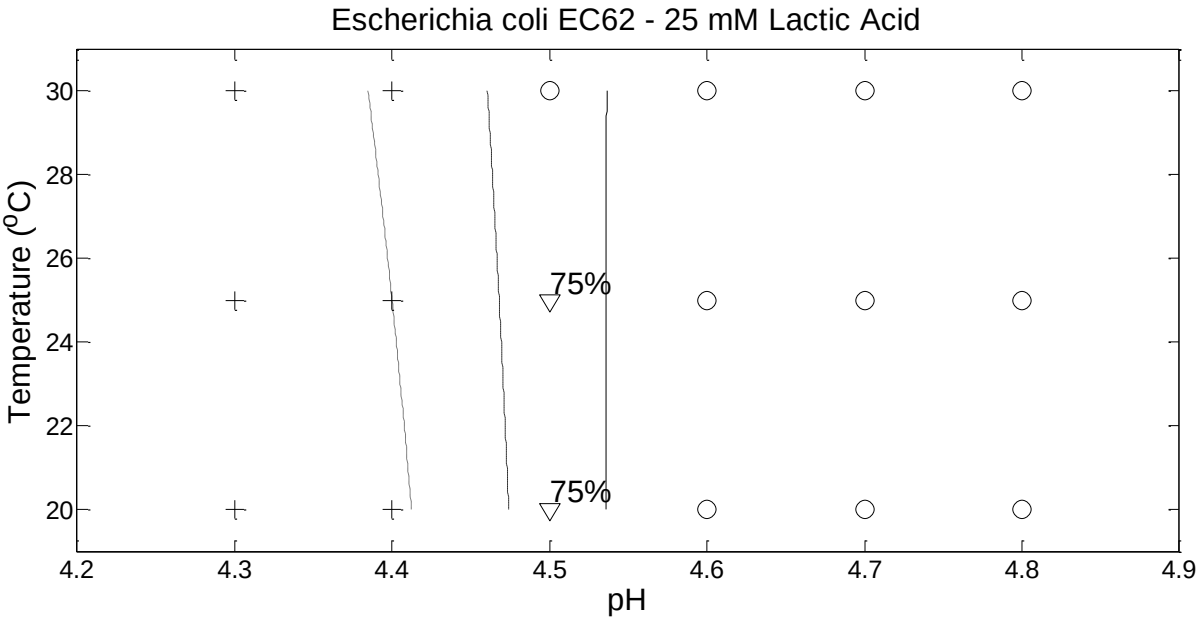
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-199.84	46.09	-4.34	0.00	-303.10	-120.25	0.00	0.00	0.00
pH	48.83	11.25	4.34	0.00	29.43	74.10	1.61E+21	6.04E+12	1.51E+32
LA	-0.78	0.16	-4.88	0.00	-1.16	-0.52	0.46	0.32	0.60
Temp	3.00	1.24	2.42	0.02	0.69	5.62	20.04	2.00	276.50
pH:Temp	-0.66	0.30	-2.24	0.03	-1.28	-0.11	0.52	0.28	0.90

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	190.93	
pH	1	13.74	154	177.19	0.00
LA	1	108.92	153	68.27	0.00
Temp	1	9.06	152	59.21	0.00
pH:Temp	1	5.56	151	53.64	0.02

AIC	63.64
Likelihood Ratio	1.08E-28
Log-Likelihood	-26.82




Escherichia coli EC62 - 0 mM Lactic Acid
75%
75%
75%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

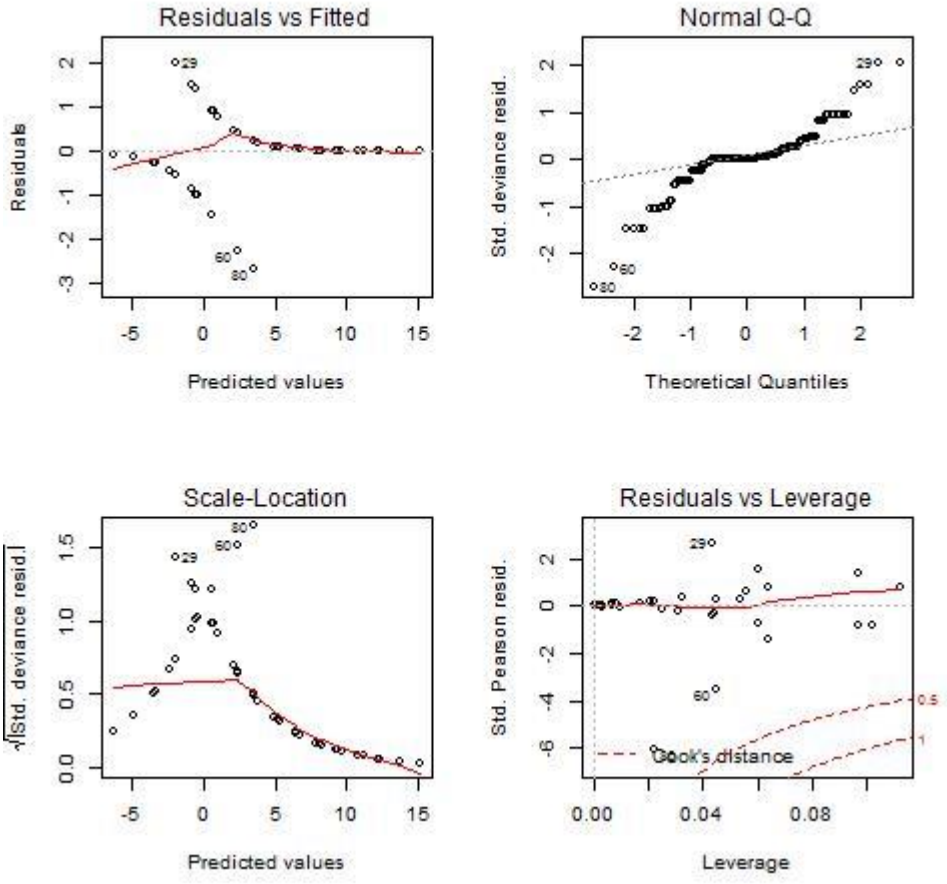

Escherichia coli EC62 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

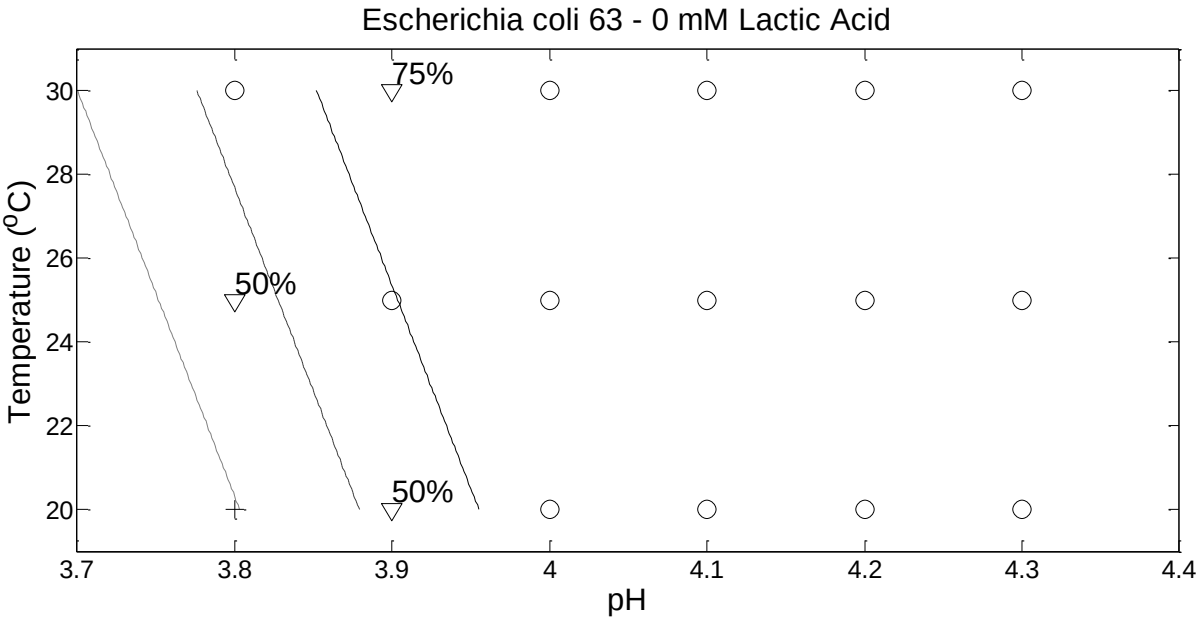
44. *E.coli* EC63 - isolated from sewerage system

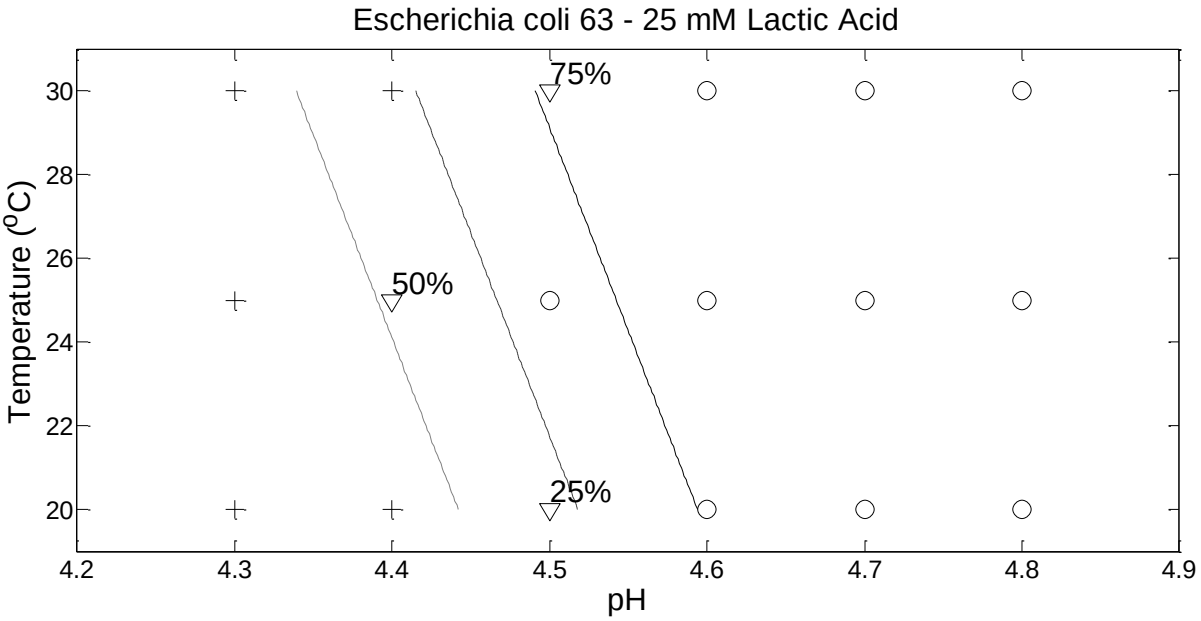
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-118.24	23.85	-4.96	0.00	-174.23	-78.85	0.00	0.00	0.00
pH	28.94	5.85	4.95	0.00	19.28	42.66	3.71E+12	2.36E+08	3.37E+18
LA	-0.74	0.15	-4.98	0.00	-1.09	-0.49	0.48	0.34	0.61
Temp	0.30	0.10	3.08	0.00	0.12	0.51	1.35	1.13	1.67

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	179.71	
pH	1	5.44	154	174.27	0.02
LA	1	102.83	153	71.44	0.00
Temp	1	12.49	152	58.95	0.00

AIC	66.95
Likelihood Ratio	5.29E-26
Log-Likelihood	-29.47




Escherichia coli 63 - 0 mM Lactic Acid
75%
50%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

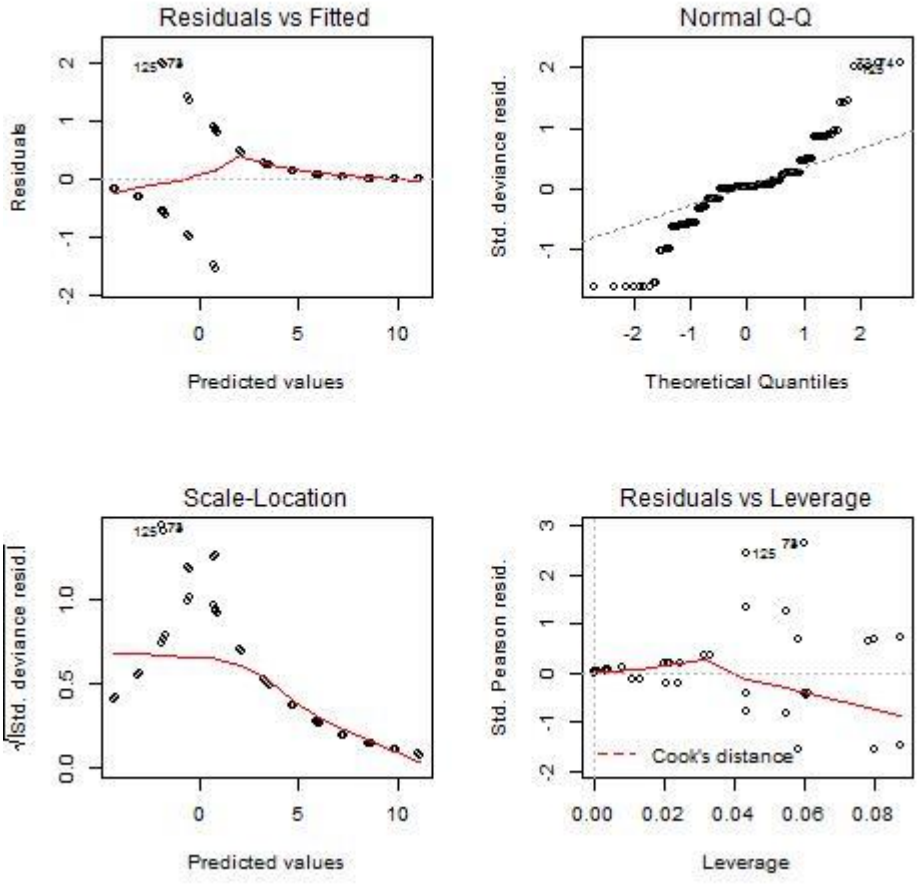

Escherichia coli 63 - 25 mM Lactic Acid
75%
50%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

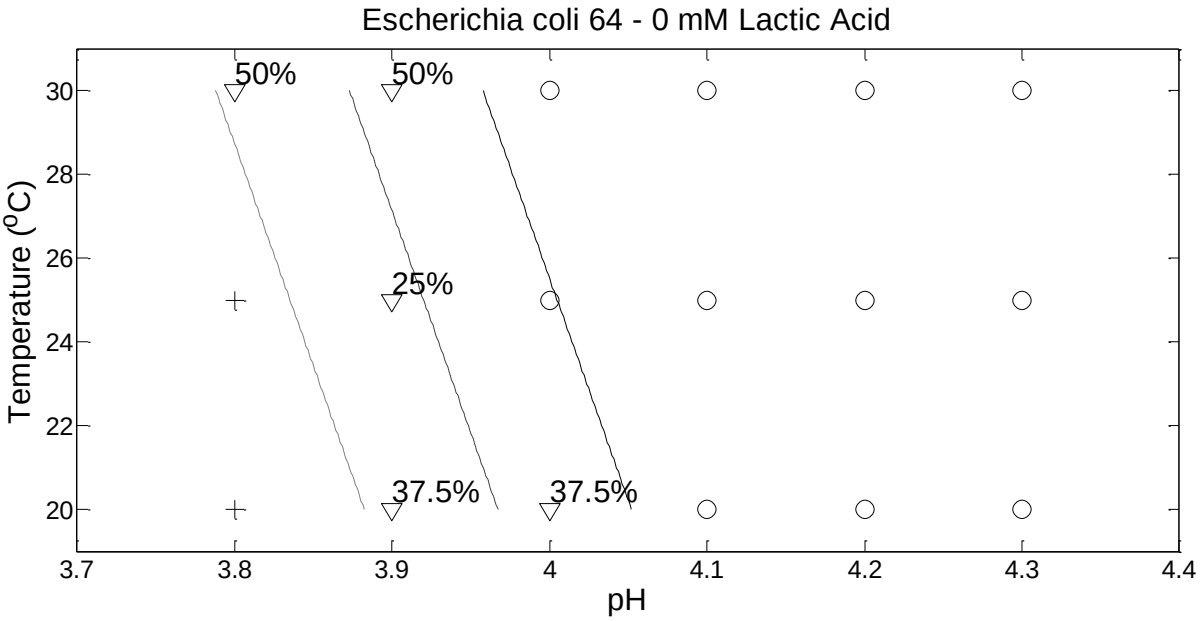
45. *E.coli* EC64 - isolated from sewerage system

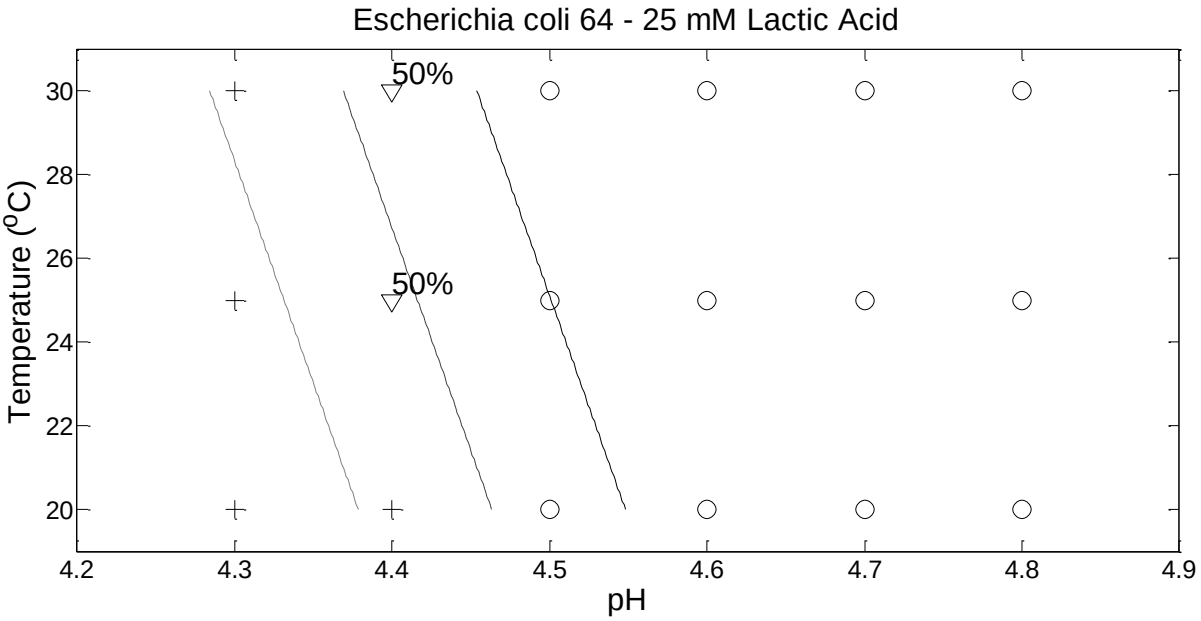
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-107.63	19.69	-5.47	0.00	-152.57	-74.43	0.00	0.00	0.00
pH	25.90	4.74	5.46	0.00	17.89	36.70	1.77E+11	5.89E+07	8.71E+15
LA	-0.51	0.10	-5.25	0.00	-0.74	-0.35	0.60	0.48	0.71
Temp	0.24	0.09	2.86	0.00	0.09	0.43	1.28	1.09	1.54

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	194.17	
pH	1	35.56	154	158.61	0.00
LA	1	80.54	153	78.07	0.00
Temp	1	10.05	152	68.02	0.00

AIC	76.02
Likelihood Ratio	3.65E-27
Log-Likelihood	-34.01




Escherichia coli 64 - 0 mM Lactic Acid
50%
50%
25%
37.5%
37.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

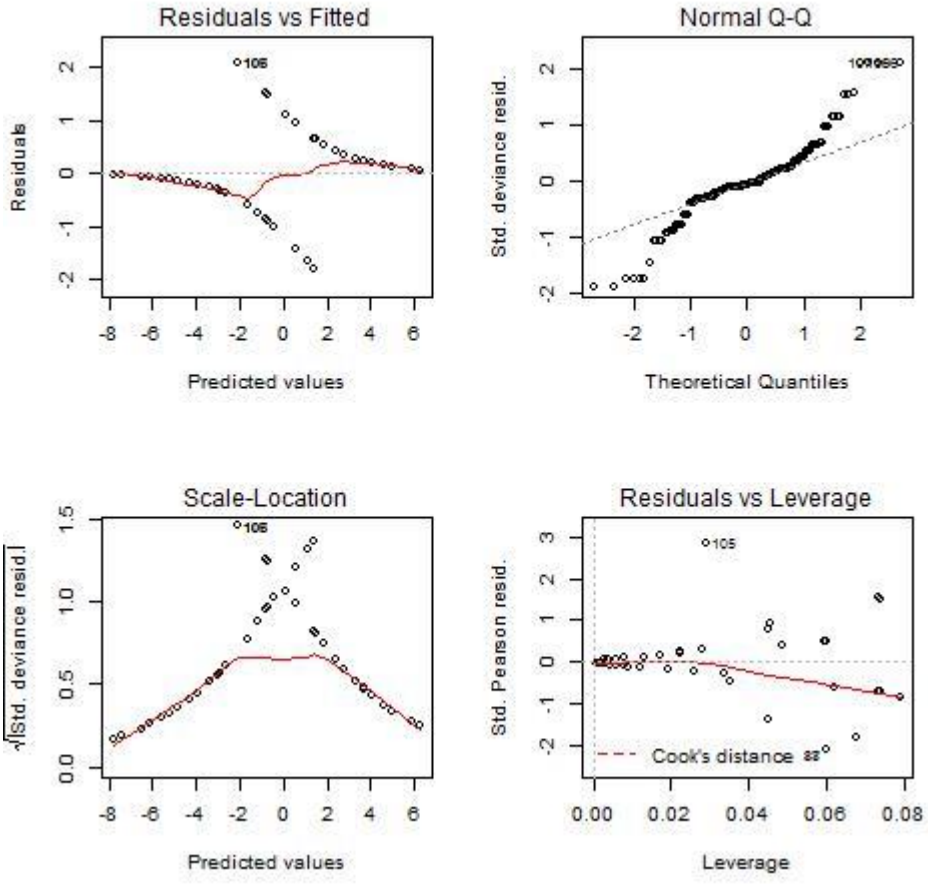

Escherichia coli 64 - 25 mM Lactic Acid
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

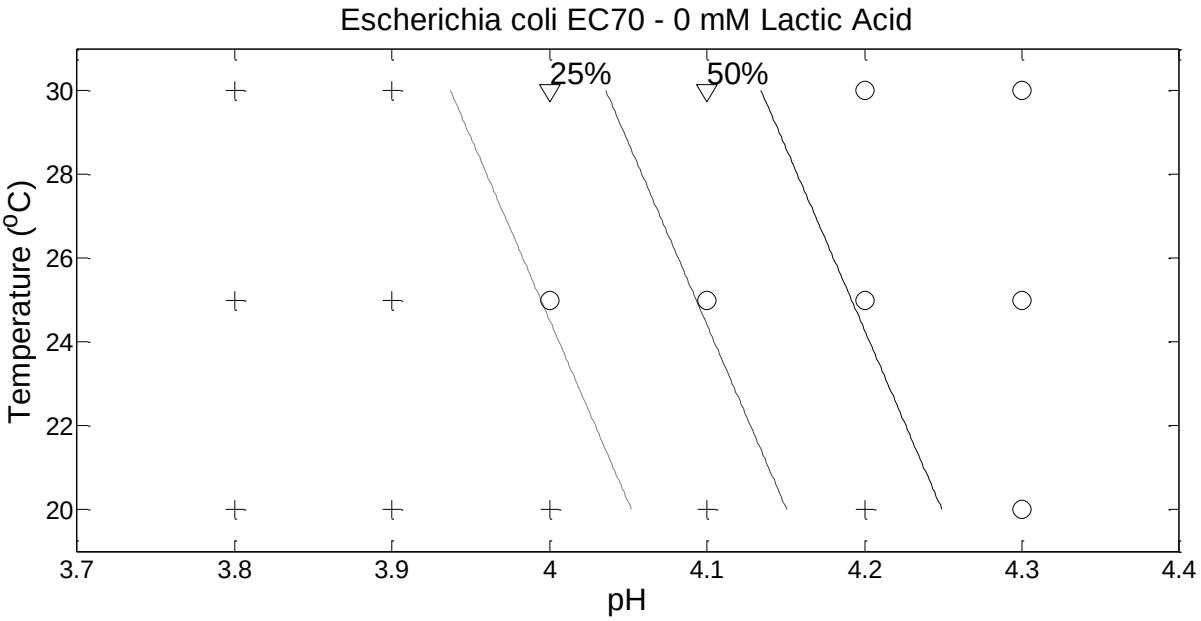
46. *E.coli* EC70 - isolated from sewerage system

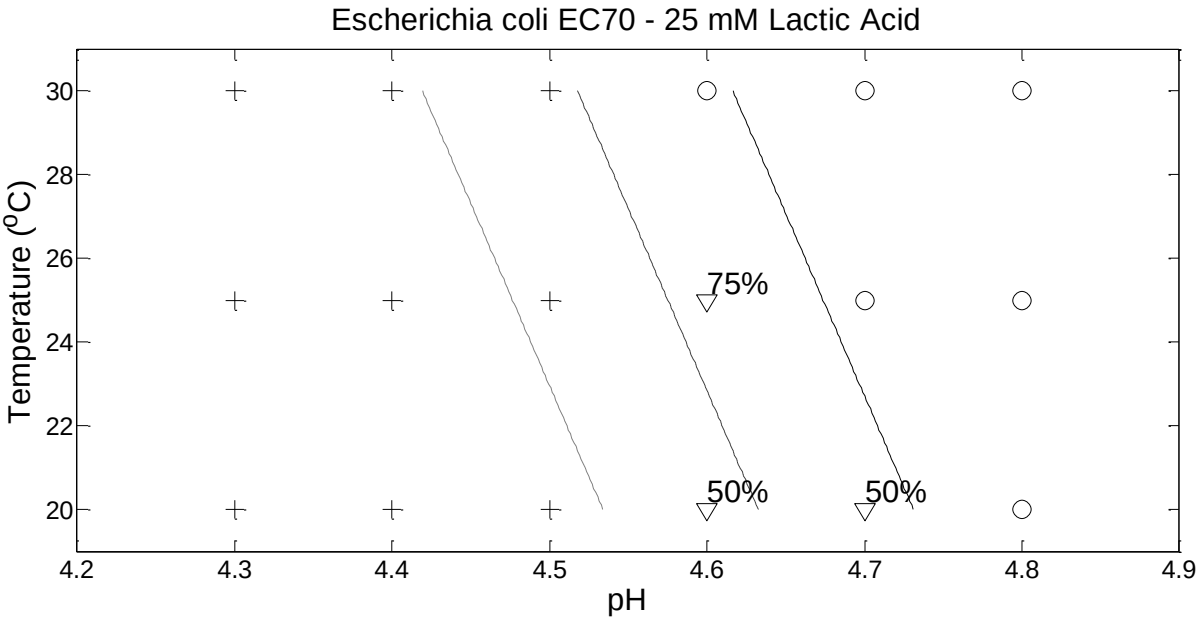
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-97.59	16.46	-5.93	0.00	-135.27	-69.80	0.00	0.00	0.00
pH	22.28	3.76	5.93	0.00	15.93	30.87	4.74E+09	8.26E+06	2.54E+13
LA	-0.43	0.08	-5.58	0.00	-0.60	-0.30	0.65	0.55	0.74
Temp	0.26	0.08	3.04	0.00	0.10	0.44	1.29	1.11	1.55

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	211.21	
pH	1	42.91	154	168.30	0.00
LA	1	85.31	153	82.99	0.00
Temp	1	11.44	152	71.54	0.00

AIC	79.54
Likelihood Ratio	4.46E-30
Log-Likelihood	-35.77




Escherichia coli EC70 - 0 mM Lactic Acid
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

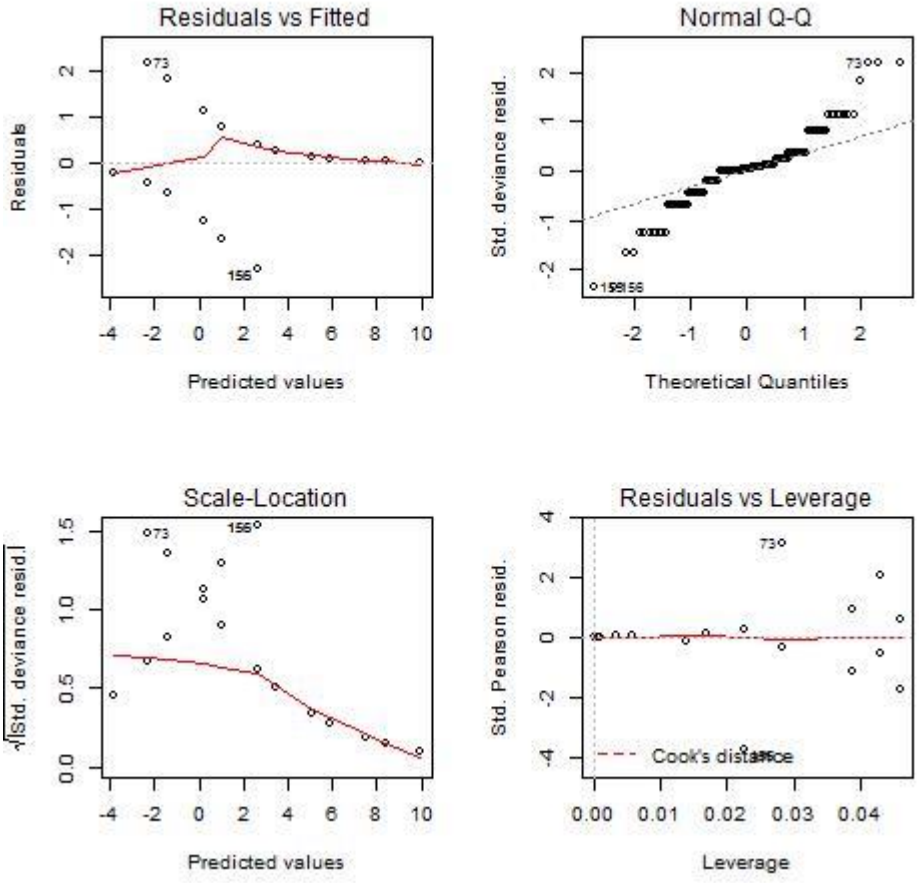

Escherichia coli EC70 - 25 mM Lactic Acid
75%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

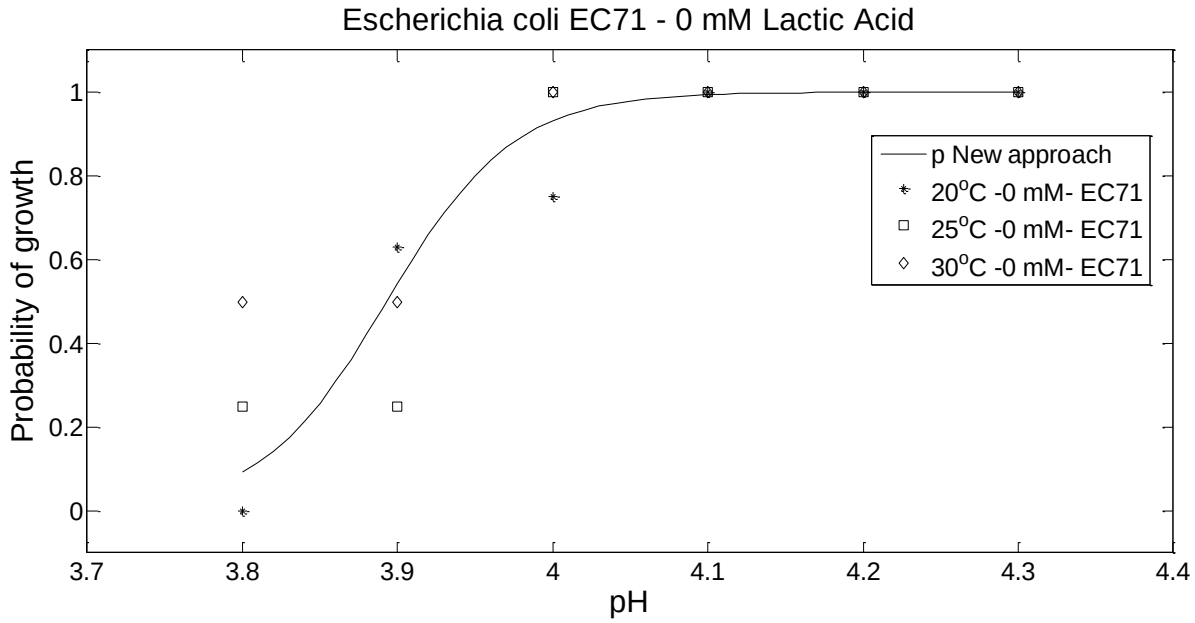
47. *E.coli* EC71 - isolated from sewerage system

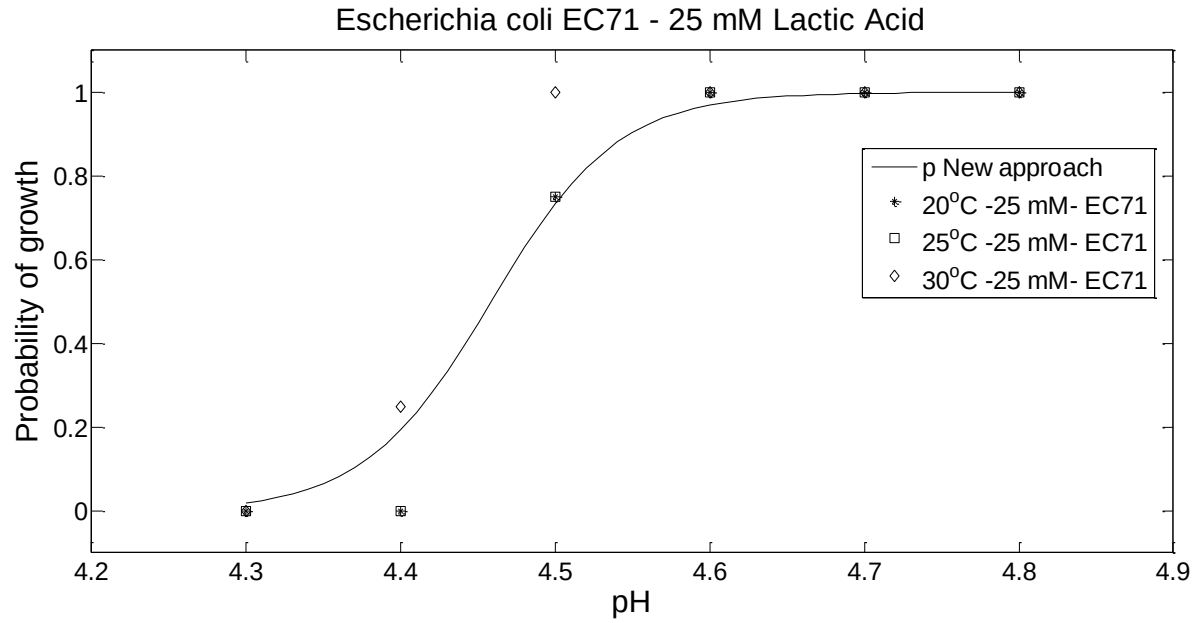
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-95.28	16.94	-5.62	0.00	-133.88	-66.52	0.00	0.00	0.00
pH	24.47	4.35	5.63	0.00	17.10	34.38	4.26E+10	2.68E+07	8.51E+14
LA	-0.55	0.10	-5.49	0.00	-0.78	-0.38	0.58	0.46	0.68

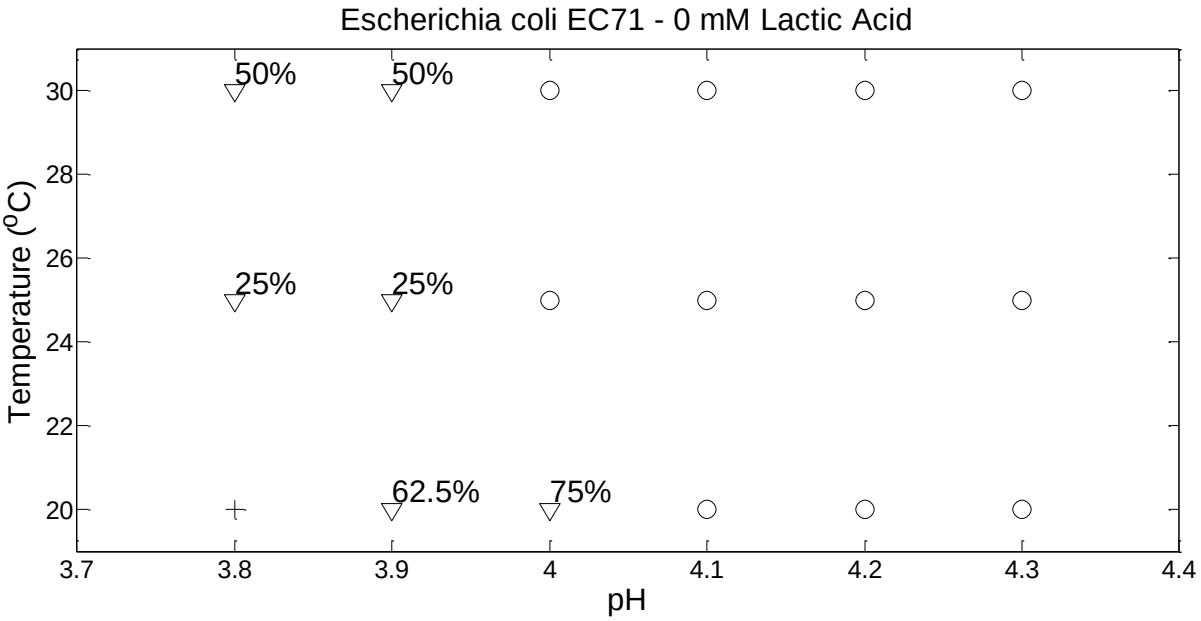
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	192.58	
pH	1	17.67	154	174.91	0.00
LA	1	102.15	153	72.76	0.00

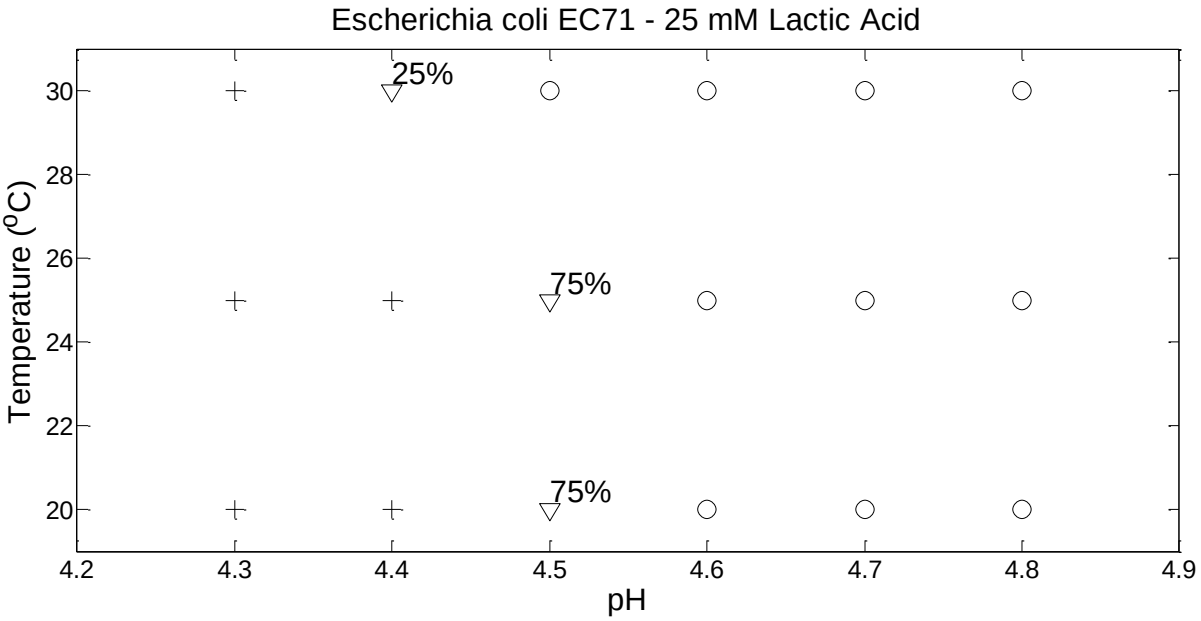
AIC	78.76
Likelihood Ratio	9.59E-27
Log-Likelihood	-36.38




Escherichia coli EC71 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC71
25°C -0 mM- EC71
30°C -0 mM- EC71
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC71 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC71
25°C -25 mM- EC71
30°C -25 mM- EC71
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC71 - 0 mM Lactic Acid
50%
50%
25%
25%
62.5%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

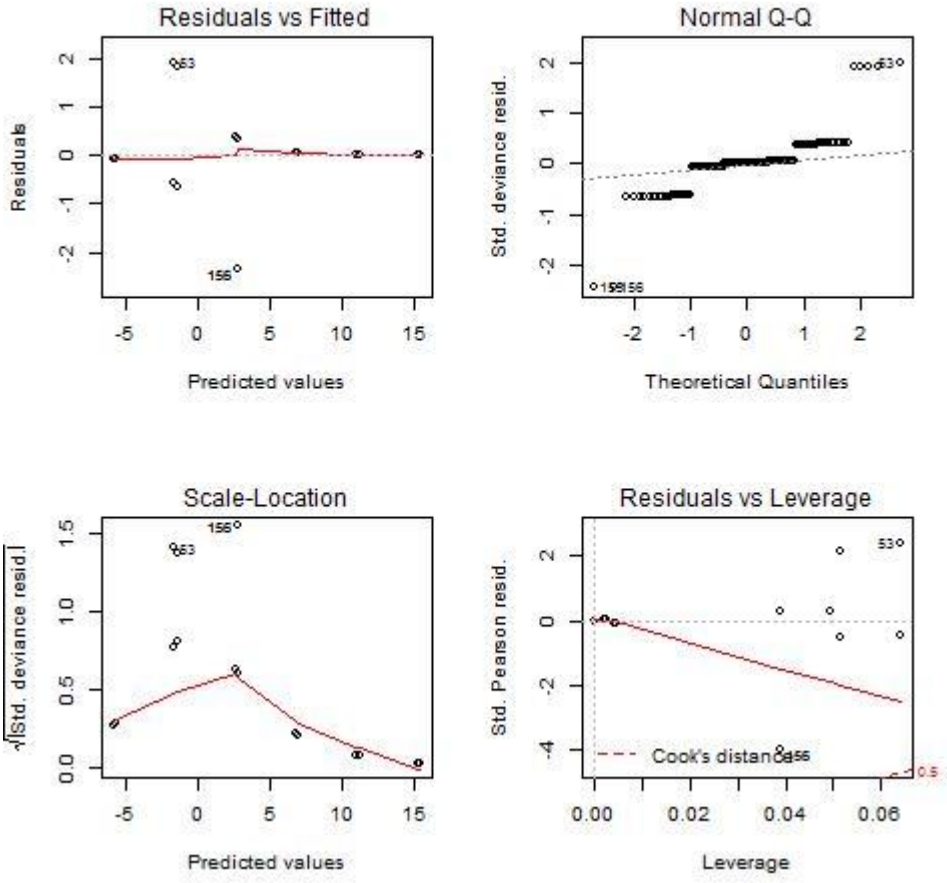

Escherichia coli EC71 - 25 mM Lactic Acid
25%
75%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

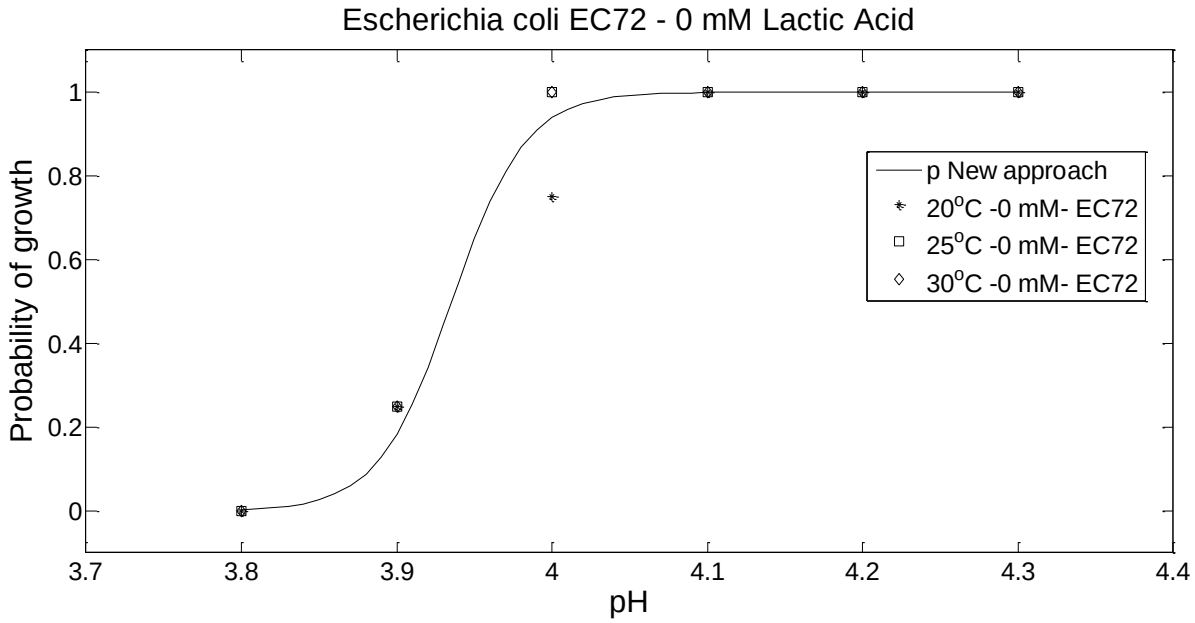
48. *E.coli* EC72 - isolated from sewerage system

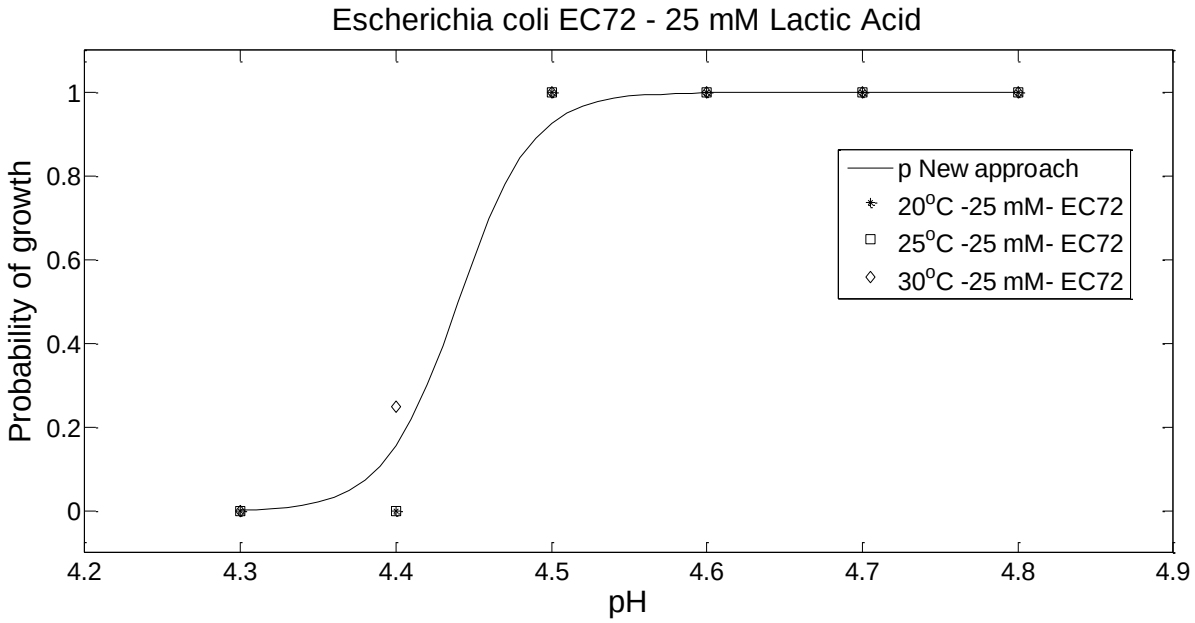
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-166.19	32.94	-5.05	0.00	-244.34	-111.60	0.00	0.00	0.00
pH	42.23	8.39	5.03	0.00	28.35	62.18	2.19E+18	2.04E+12	1.01E+27
LA	-0.85	0.17	-4.92	0.00	-1.27	-0.57	0.43	0.28	0.57

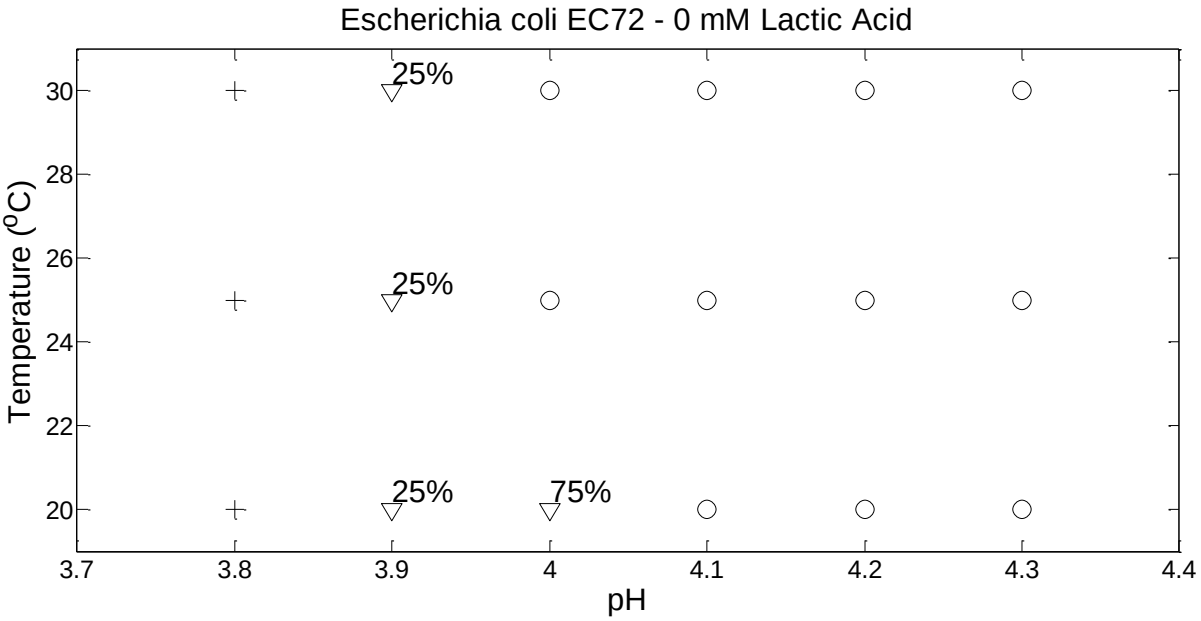
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	199.95	
pH	1	37.36	154	162.59	0.00
LA	1	121.72	153	40.87	0.00

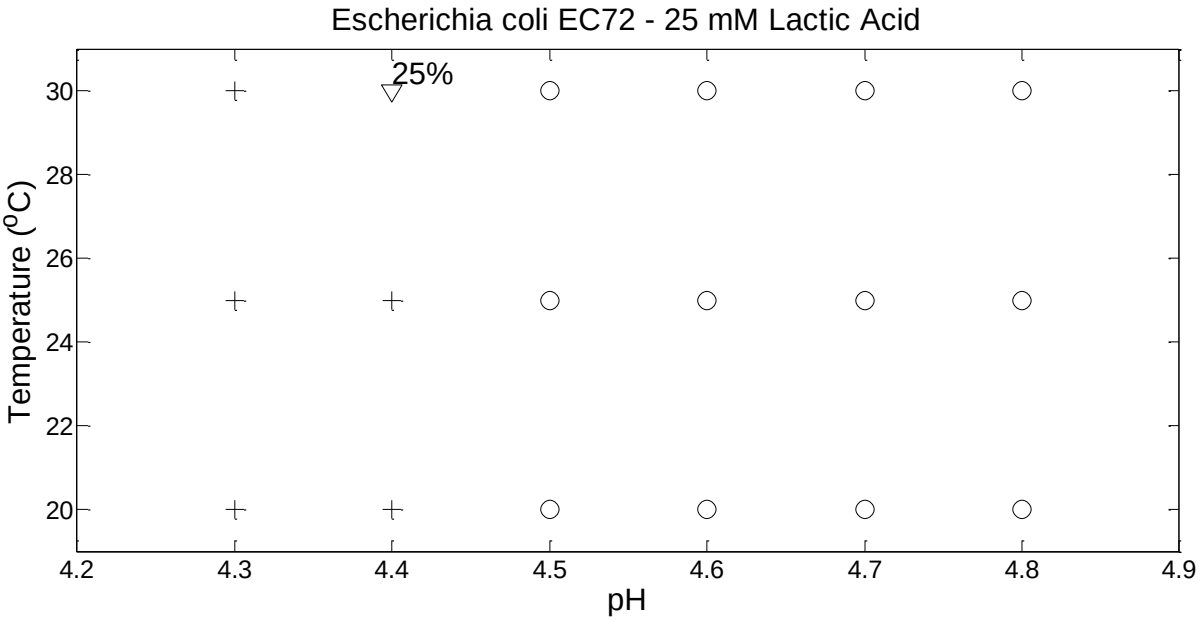
AIC	46.87
Likelihood Ratio	2.86E-35
Log-Likelihood	-20.44




Escherichia coli EC72 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC72
25°C -0 mM- EC72
30°C -0 mM- EC72
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC72 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC72
25°C -25 mM- EC72
30°C -25 mM- EC72
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC72 - 0 mM Lactic Acid
25%
25%
25%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

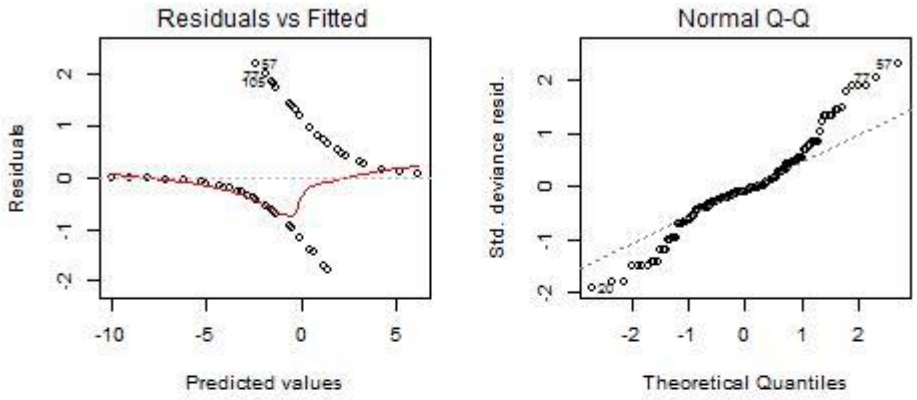

Escherichia coli EC72 - 25 mM Lactic Acid
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

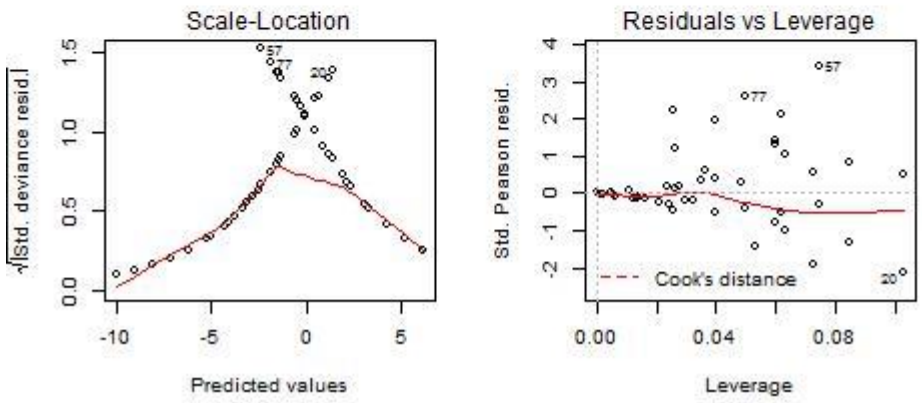
49. *E.coli* EC73 - isolated from sewerage system

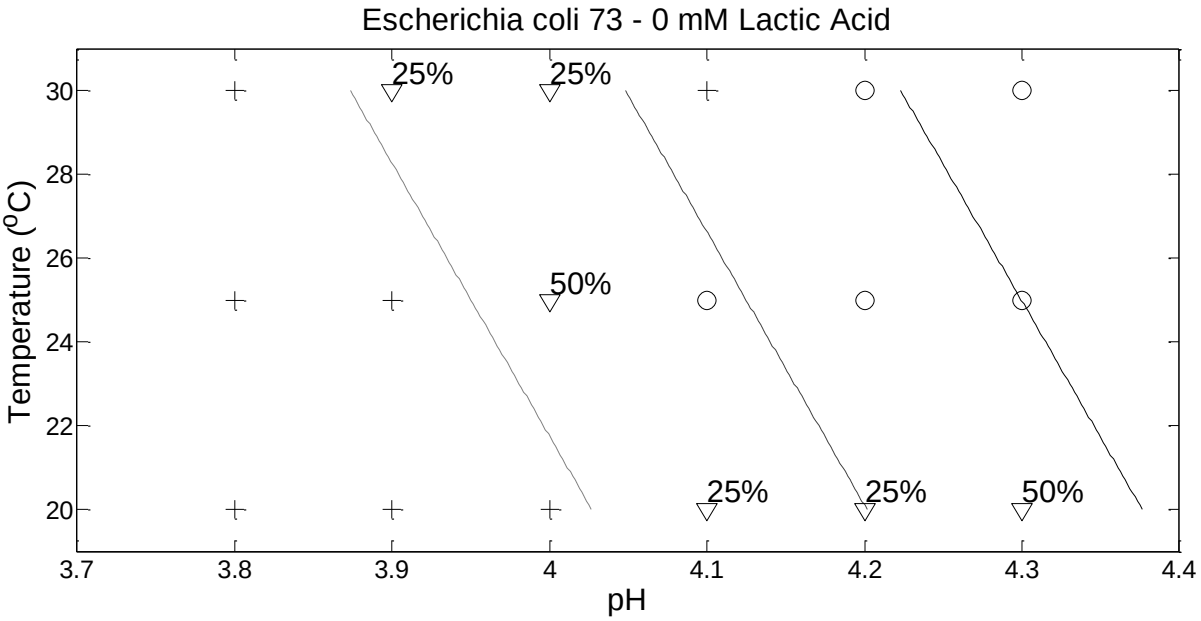
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-56.68	11.54	-4.91	0.00	-82.51	-36.67	0.00	0.00	0.00
pH	12.57	2.67	4.71	0.00	7.92	18.54	2.88E+05	2.76E+03	1.13E+08
LA	-3.23	1.41	-2.28	0.02	-6.72	-0.92	0.04	0.00	0.40
Temp	0.19	0.07	2.72	0.01	0.06	0.34	1.21	1.06	1.41
pH:LA	0.65	0.31	2.09	0.04	0.14	1.41	1.91	1.14	4.08

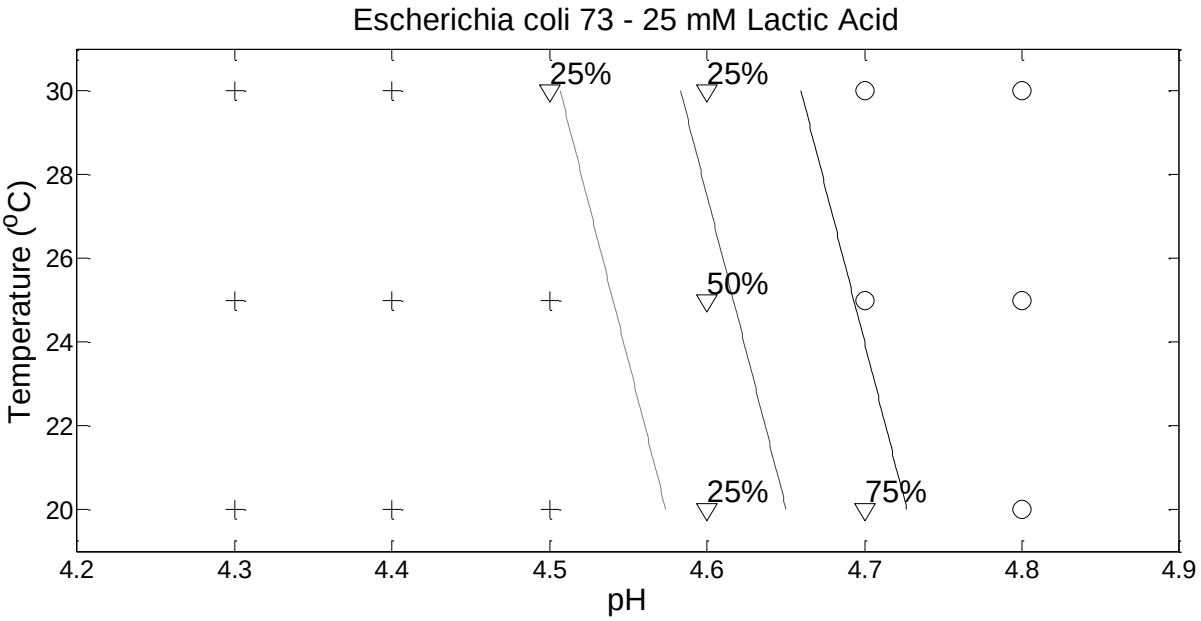
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	203.68	
pH	1	32.84	154	170.84	0.00
LA	1	70.74	153	100.10	0.00
Temp	1	7.35	152	92.75	0.01
pH:LA	1	6.64	151	86.11	0.01

AIC	96.11
Likelihood Ratio	1.76E-24
Log-Likelihood	-43.06






Escherichia coli 73 - 0 mM Lactic Acid
25%
25%
50%
25%
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

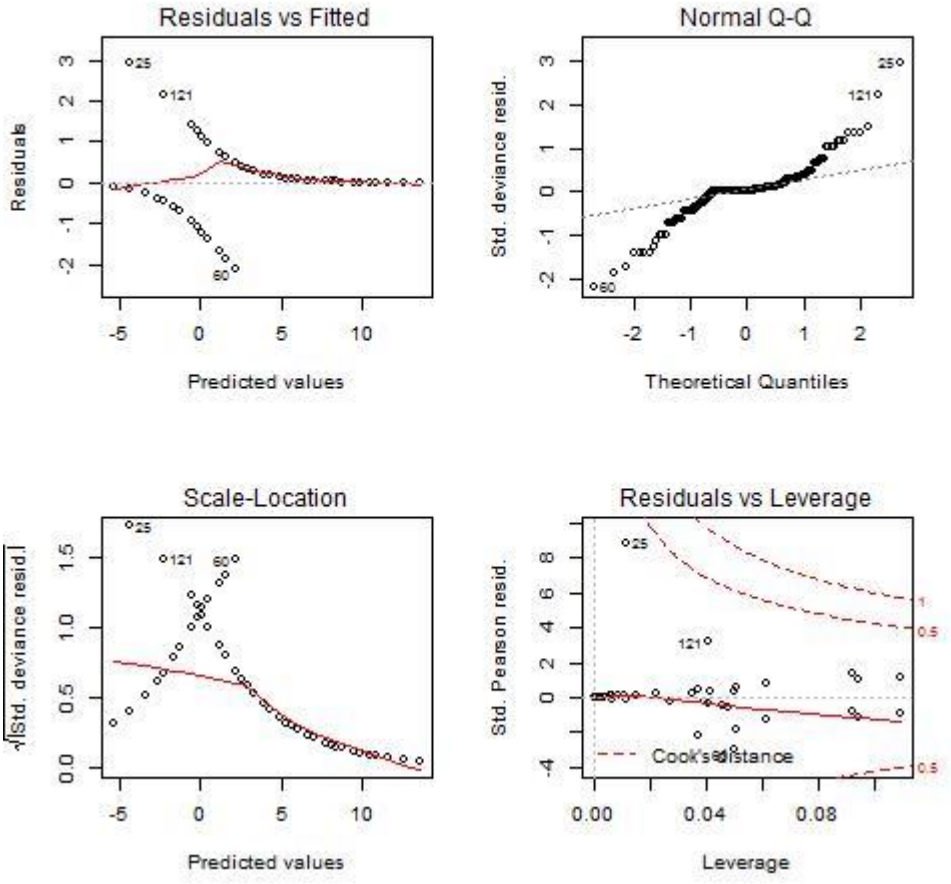

Escherichia coli 73 - 25 mM Lactic Acid
25%
25%
50%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

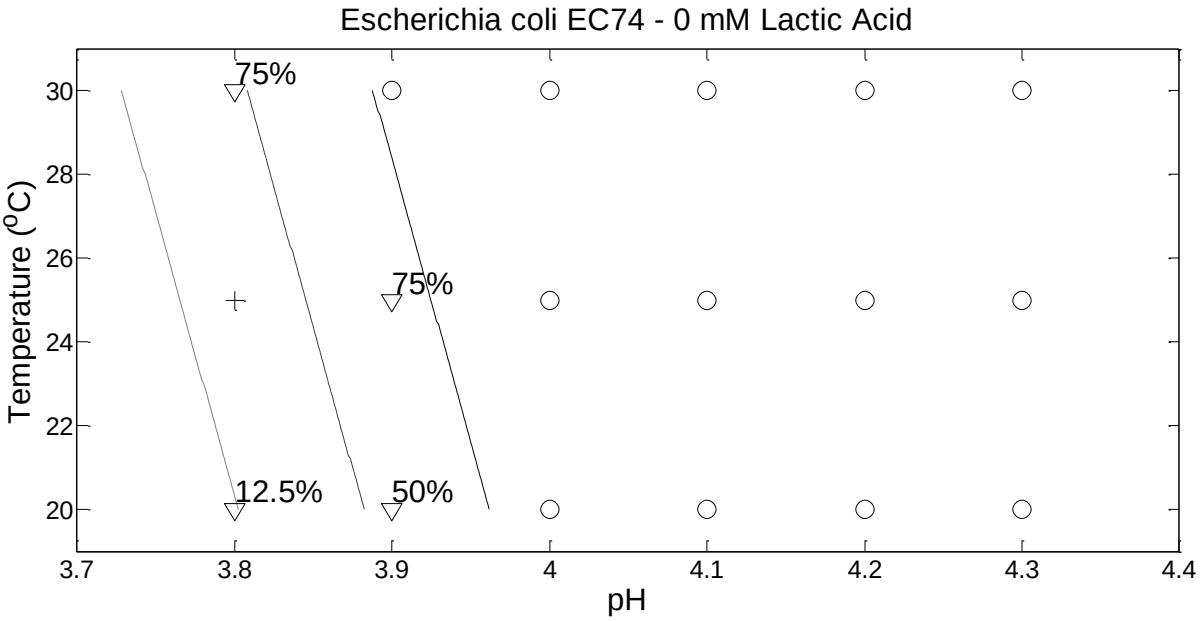
50. *E.coli* EC74 - isolated from sewerage system

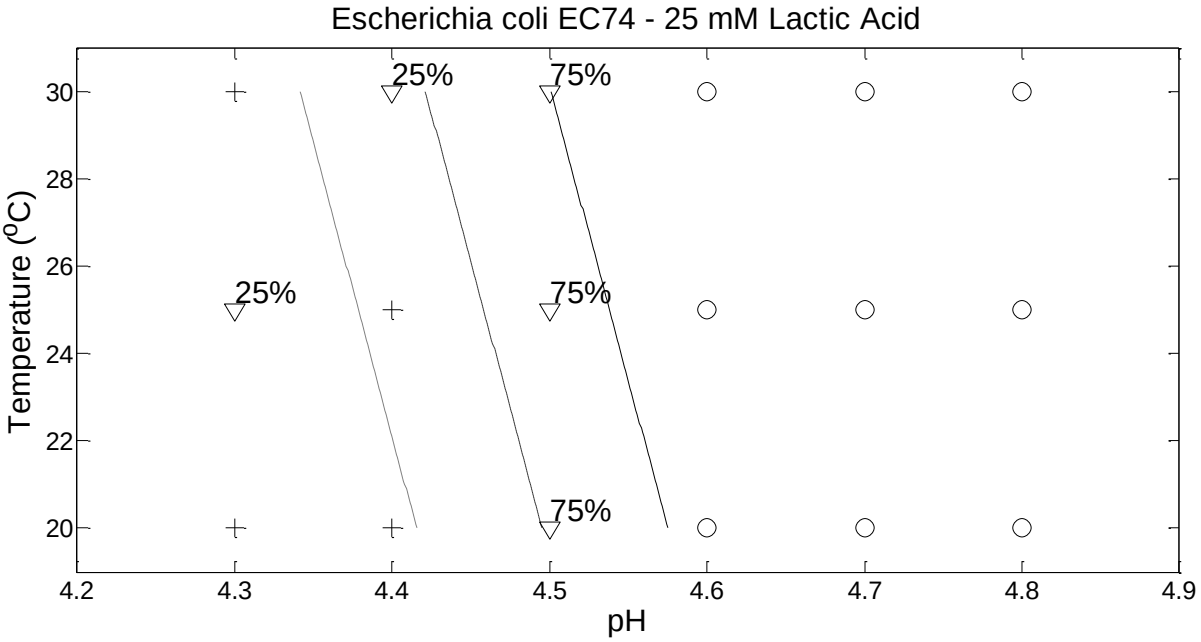
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-111.00	21.53	-5.16	0.00	-161.01	-75.07	0.00	0.00	0.00
pH	27.54	5.33	5.17	0.00	18.64	39.87	9.13E+11	1.24E+08	2.08E+17
LA	-0.68	0.13	-5.14	0.00	-0.98	-0.46	0.51	0.38	0.63
Temp	0.20	0.09	2.38	0.02	0.05	0.39	1.23	1.05	1.47

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	181.74	
pH	1	8.75	154	172.99	0.00
LA	1	103.08	153	69.91	0.00
Temp	1	6.56	152	63.35	0.01

AIC	71.35
Likelihood Ratio	1.72E-25
Log-Likelihood	-31.67




Escherichia coli EC74 - 0 mM Lactic Acid
75%
75%
12.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC74 - 25 mM Lactic Acid
25%
75%
25%
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

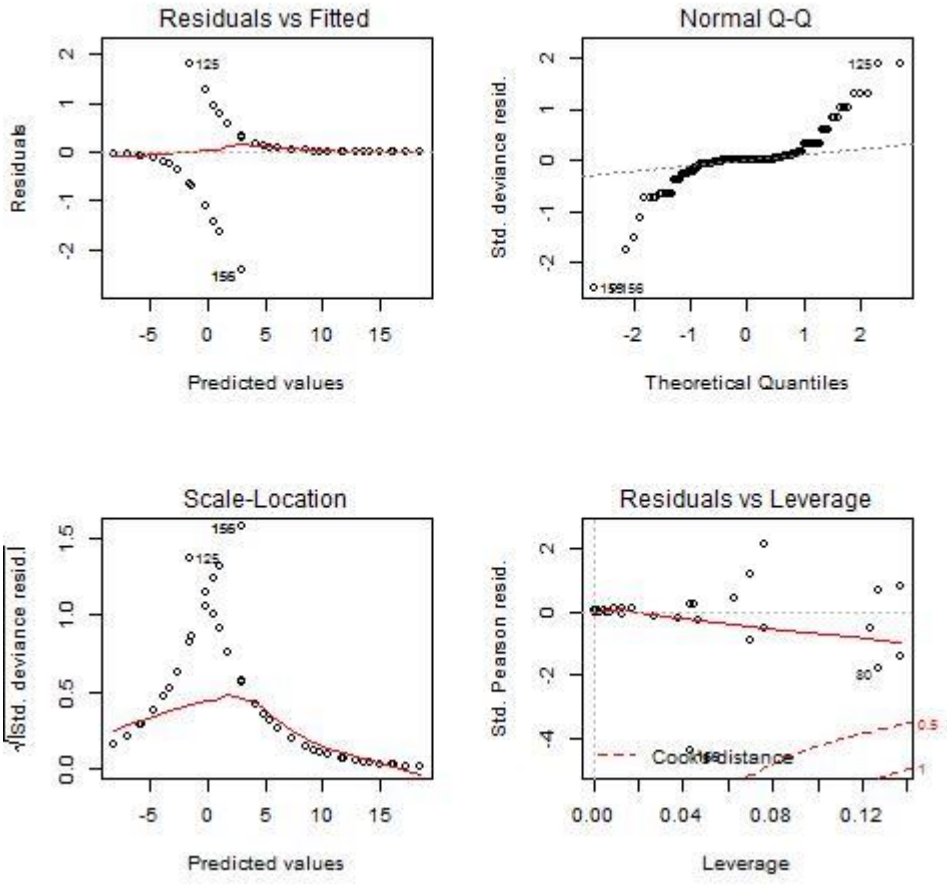
51. *E.coli* ECOR 1

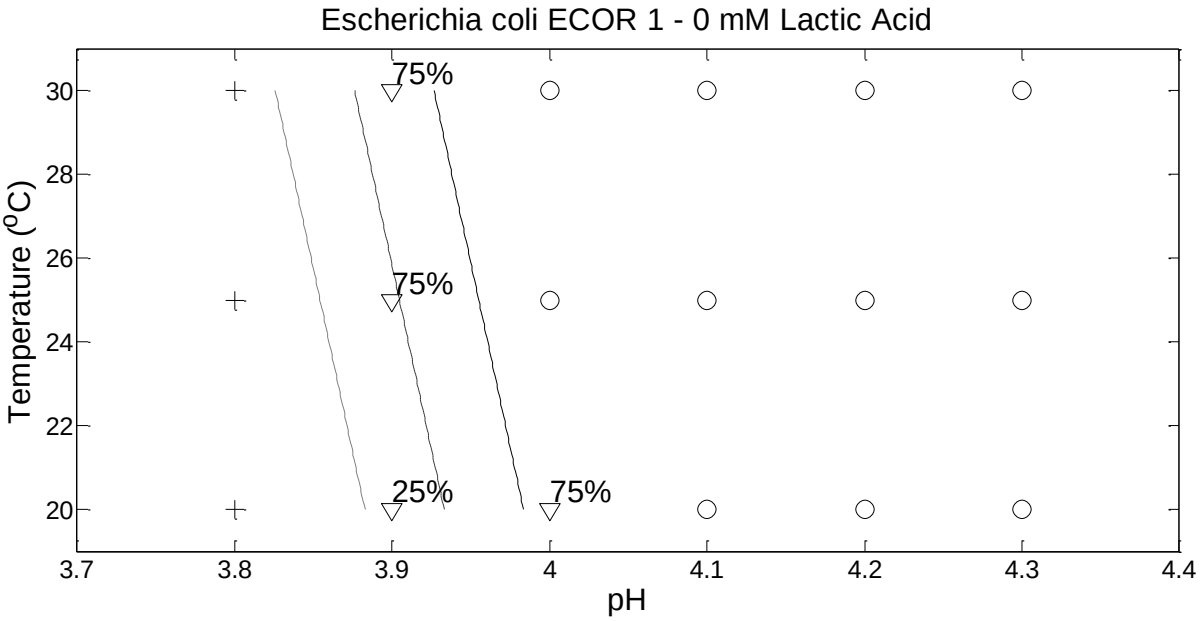
O	H	Host	Locale	Notes
N	N	human	USA (Iowa)	Group A strain from a healthy person

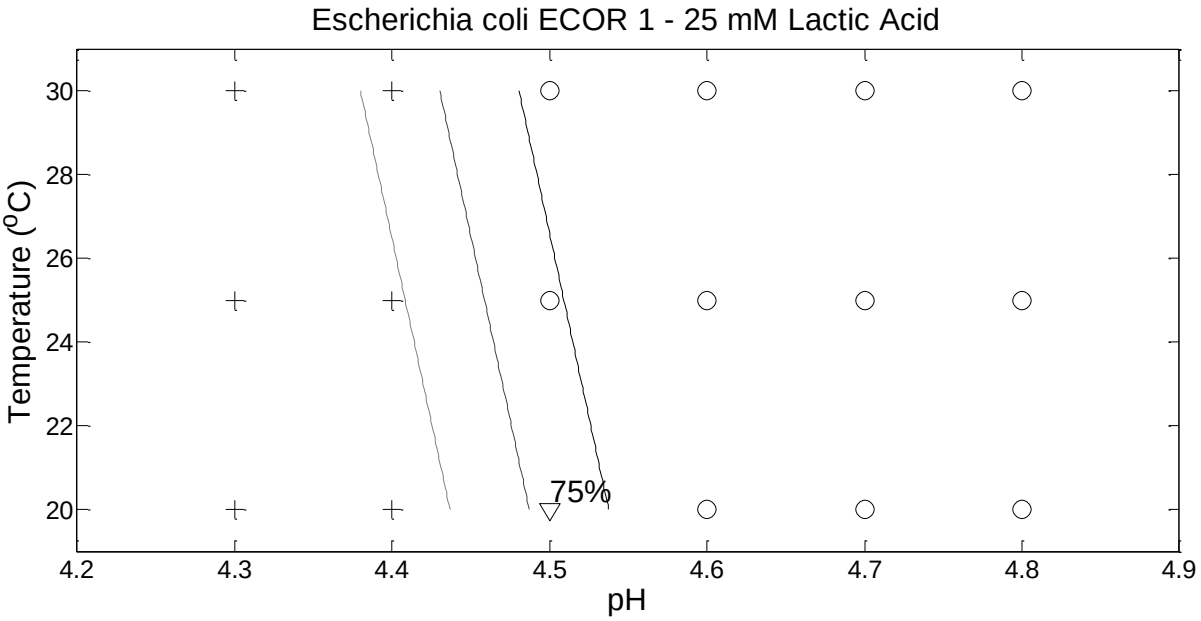
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-176.49	38.34	-4.60	0.00	-268.61	-114.93	0.00	0.00	0.00
pH	43.61	9.49	4.60	0.00	28.40	66.48	8.72E+18	2.17E+12	7.41E+28
LA	-0.97	0.21	-4.51	0.00	-1.49	-0.62	0.38	0.23	0.54
Temp	0.25	0.11	2.29	0.02	0.05	0.49	1.28	1.05	1.63

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	197.18	
pH	1	25.32	154	171.86	0.00
LA	1	123.60	153	48.25	0.00
Temp	1	6.38	152	41.87	0.01

AIC	49.87
Likelihood Ratio	1.89E-33
Log-Likelihood	-20.93




Escherichia coli ECOR 1 - 0 mM Lactic Acid
75%
75%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

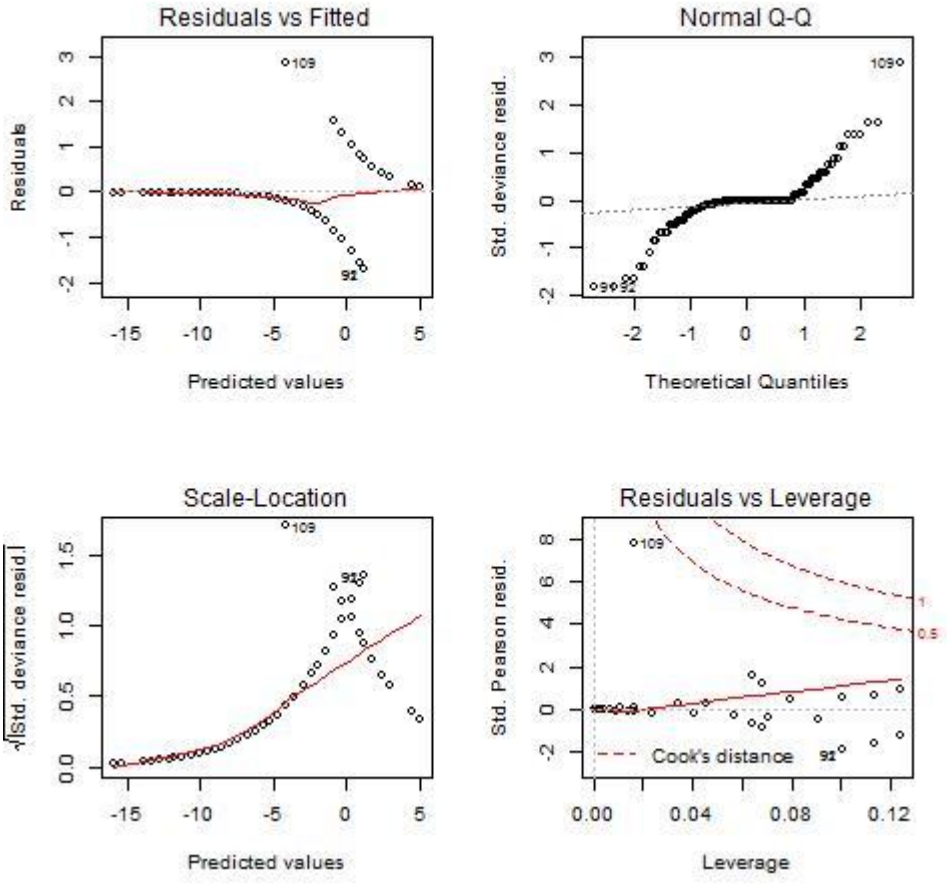

Escherichia coli ECOR 1 - 25 mM Lactic Acid
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

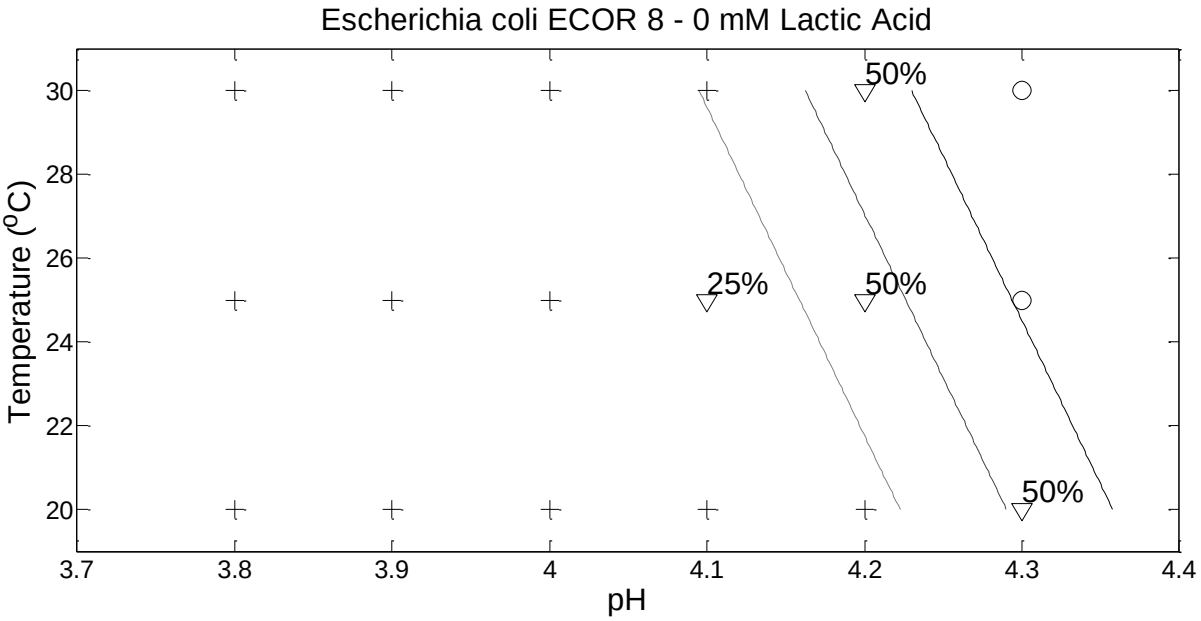
52. *E.coli* ECOR 8	O	H	Host	Locale	Notes
	86	NM	human	USA	Group A strain from a healthy person

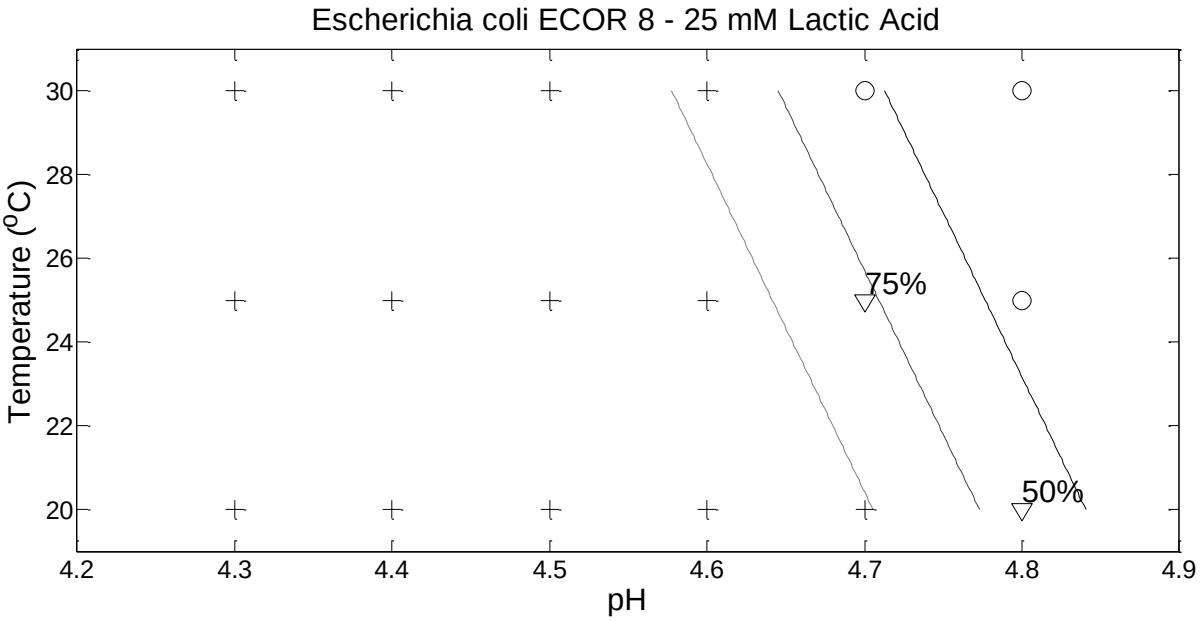
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-147.83	32.62	-4.53	0.00	-225.24	-94.93	0.00	0.00	0.00
pH	32.52	7.19	4.53	0.00	20.82	49.50	1.33E+14	1.10E+09	3.16E+21
LA	-0.63	0.14	-4.41	0.00	-0.96	-0.39	0.53	0.38	0.67
Temp	0.42	0.13	3.26	0.00	0.20	0.71	1.52	1.22	2.04

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	158.32	
pH	1	29.49	154	128.83	0.00
LA	1	64.99	153	63.84	0.00
Temp	1	17.45	152	46.38	0.00

AIC	54.38
Likelihood Ratio	4.21E-24
Log-Likelihood	-23.19




Escherichia coli ECOR 8 - 0 mM Lactic Acid
Temperature (°C)
pH
50%
25%
50%
50%
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

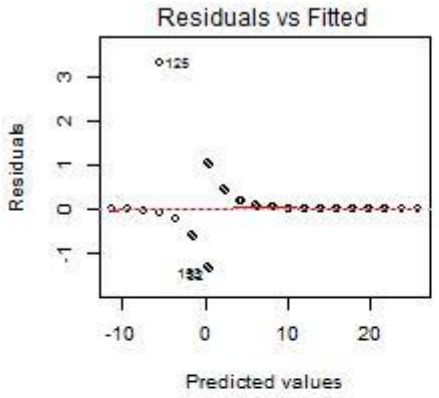

Escherichia coli ECOR 8 - 25 mM Lactic Acid
Temperature (°C)
pH
75%
50%
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

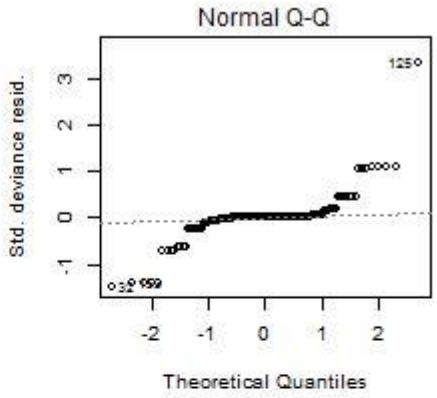
53. *E.coli* ECOR 15	O	H	Host	Locale	Notes
	25	NM	human	USA	Group A strain from a healthy person

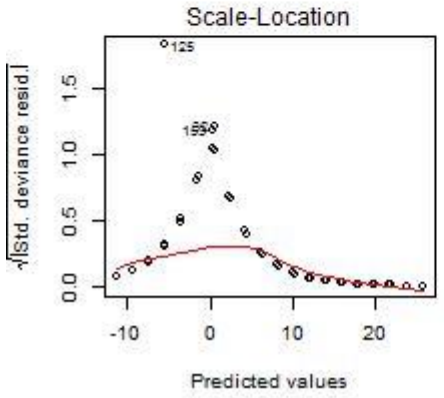
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-242.11	64.86	-3.73	0.00	-408.49	-144.37	0.00	0.00	0.00
pH	58.67	15.69	3.74	0.00	35.00	98.89	3.01E+25	1.59E+15	8.87E+42
LA	-1.01	0.27	-3.71	0.00	-1.71	-0.60	0.36	0.18	0.55
Temp	0.39	0.16	2.49	0.01	0.13	0.77	1.48	1.14	2.16

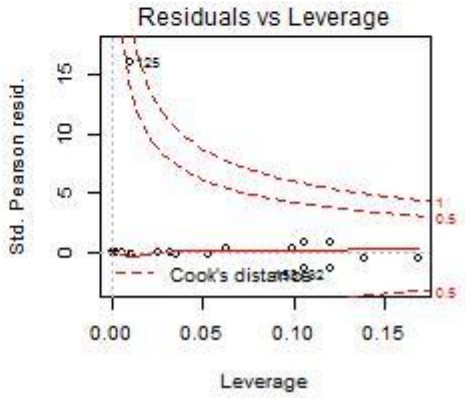
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	198.59	
pH	1	60.83	154	137.76	0.00
LA	1	95.03	153	42.72	0.00
Temp	1	10.17	152	32.56	0.00

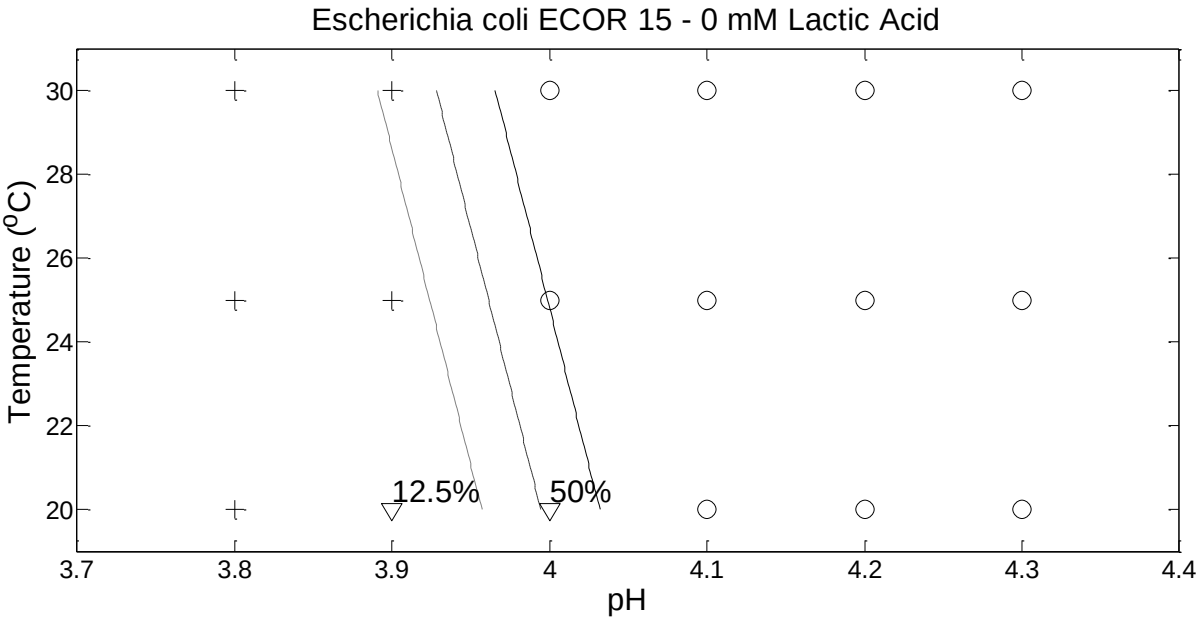
AIC	40.56
Likelihood Ratio	9.13E-36
Log-Likelihood	-16.28

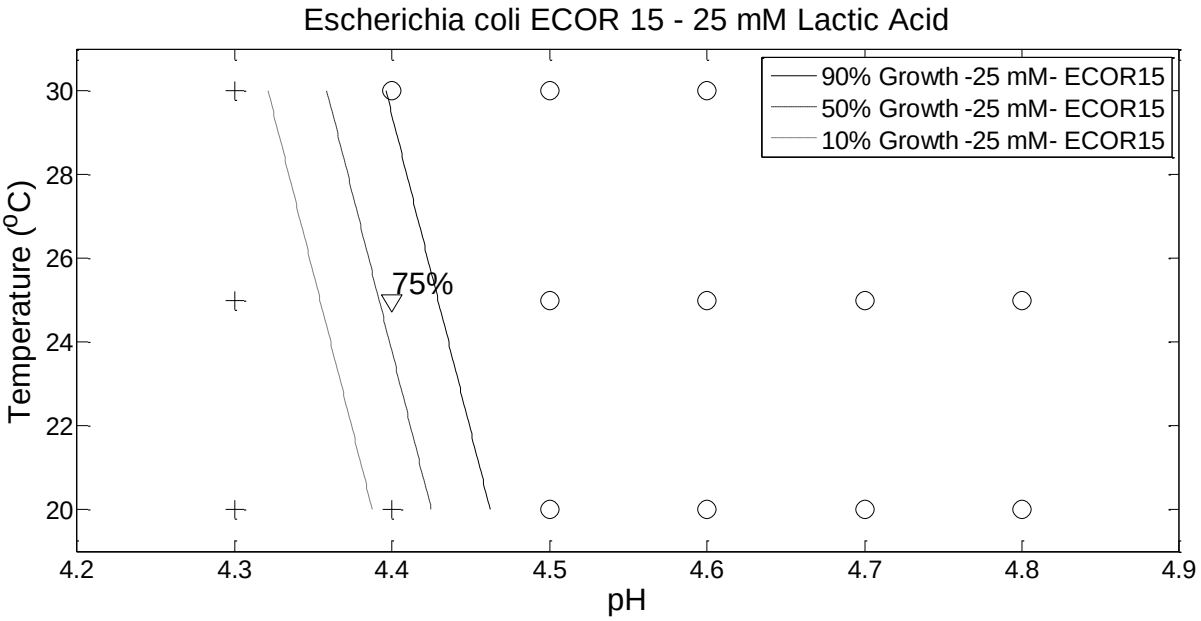









Escherichia coli ECOR 15 - 0 mM Lactic Acid
Temperature (°C)
pH
12.5%
50%
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

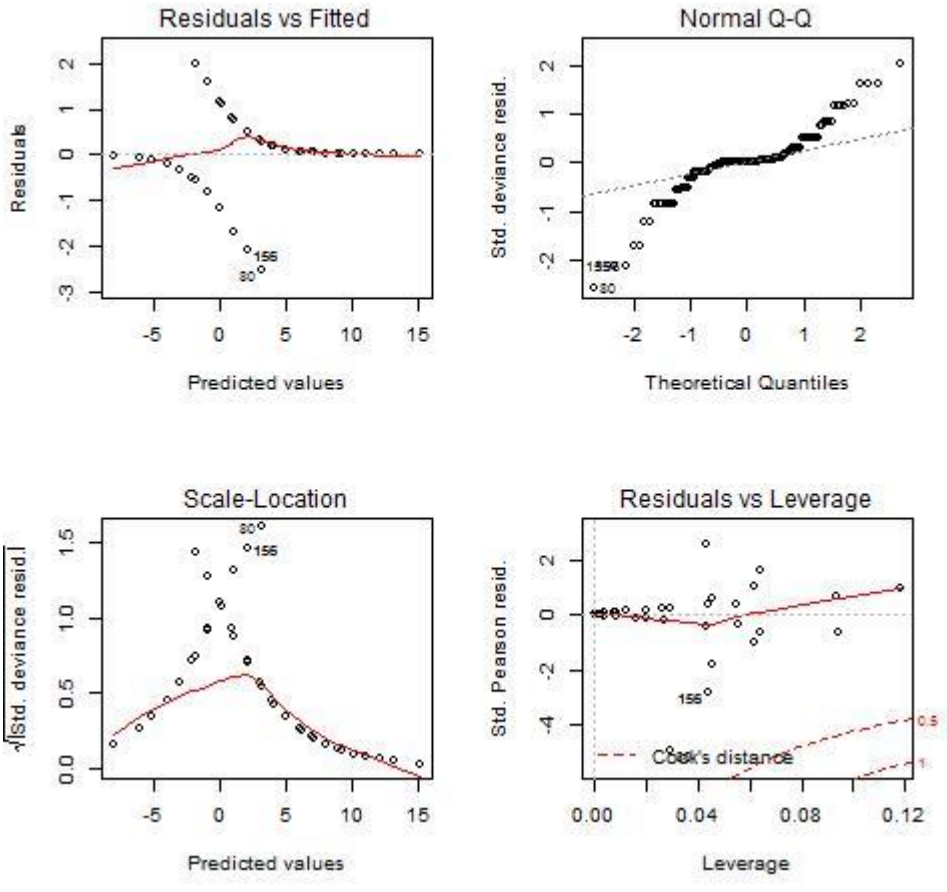

Escherichia coli ECOR 15 - 25 mM Lactic Acid
90% Growth -25 mM- ECOR15
50% Growth -25 mM- ECOR15
10% Growth -25 mM- ECOR15
Temperature (°C)
pH
75%
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

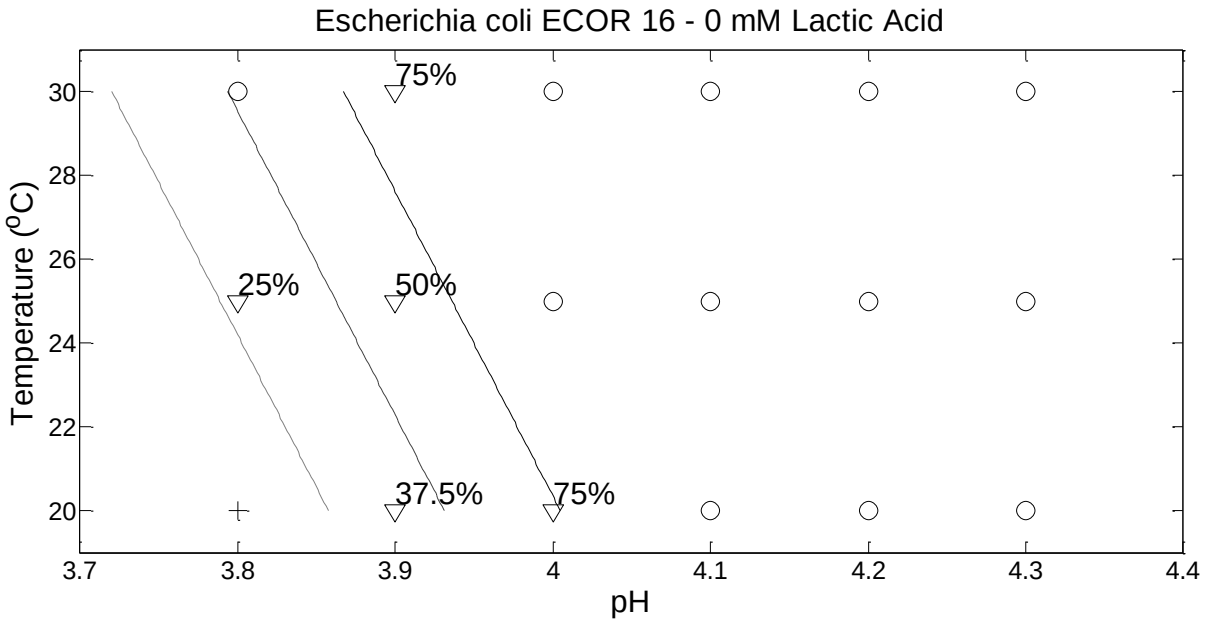
54. *E.coli* ECOR 16	O	H	Host	Locale	Notes
	N	10	leopard	USA	Group A strain from a healthy leopard in captivity

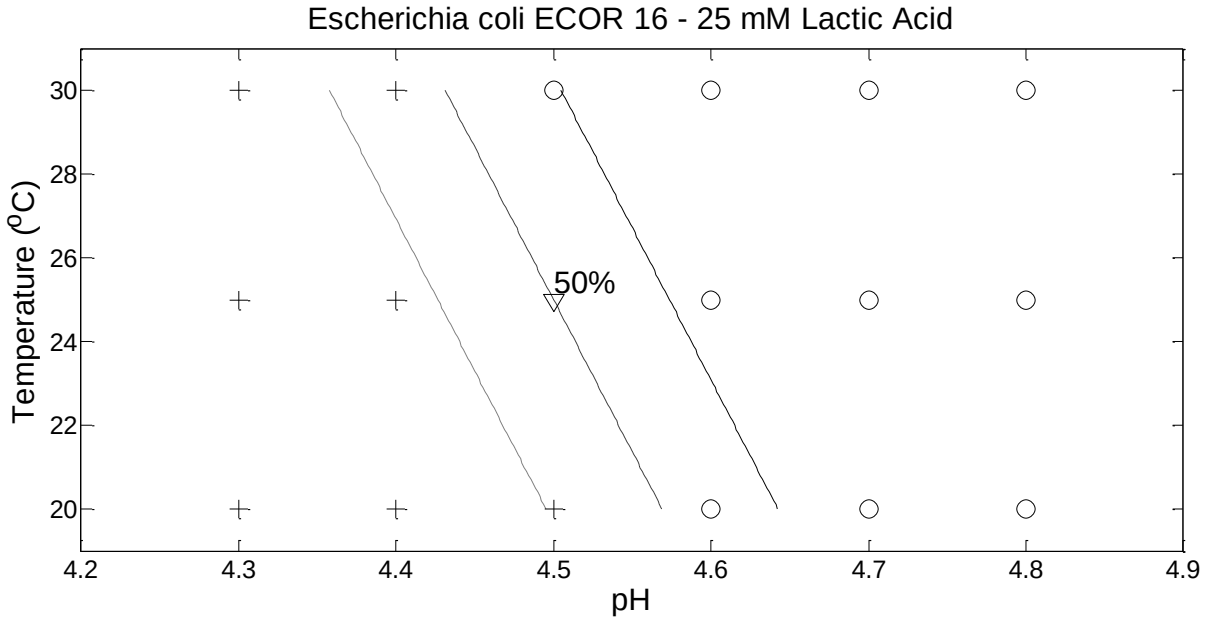
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-125.63	24.48	-5.13	0.00	-182.47	-85.08	0.00	0.00	0.00
pH	29.87	5.83	5.12	0.00	20.20	43.40	9.36E+12	5.90E+08	7.06E+18
LA	-0.76	0.15	-5.08	0.00	-1.11	-0.51	0.47	0.33	0.60
Temp	0.41	0.11	3.74	0.00	0.22	0.66	1.51	1.24	1.93

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	197.18	
pH	1	8.82	154	188.36	0.00
LA	1	107.47	153	80.89	0.00
Temp	1	22.14	152	58.75	0.00

AIC	66.75
Likelihood Ratio	8.25E-30
Log-Likelihood	-29.37




Escherichia coli ECOR 16 - 0 mM Lactic Acid
75%
25%
50%
37.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

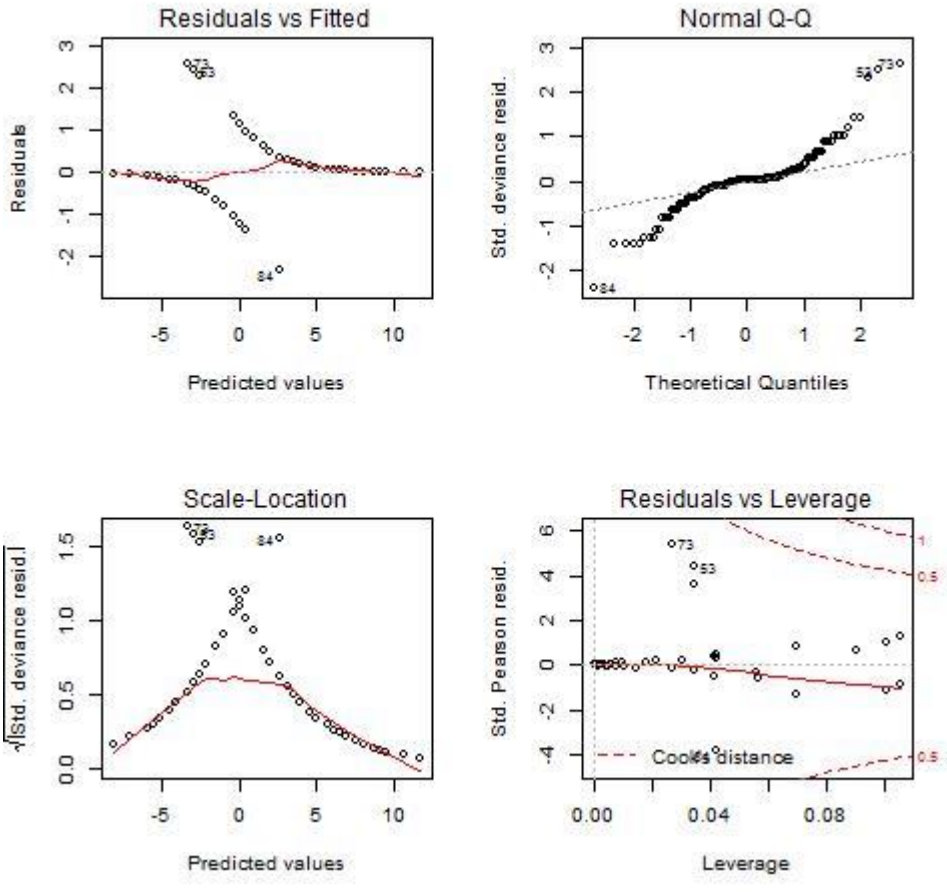

Escherichia coli ECOR 16 - 25 mM Lactic Acid
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

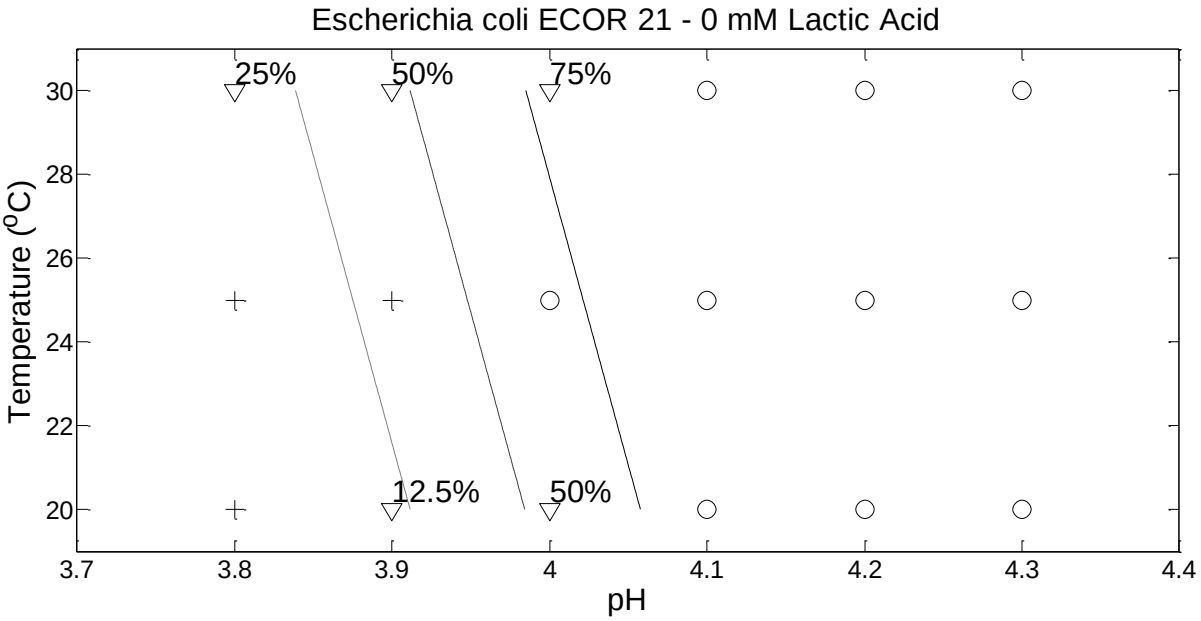
55. *E.coli* ECOR 21	O	H	Host	Locale	Notes
	121	N	steer	Bali	Group A strain from a healthy steer

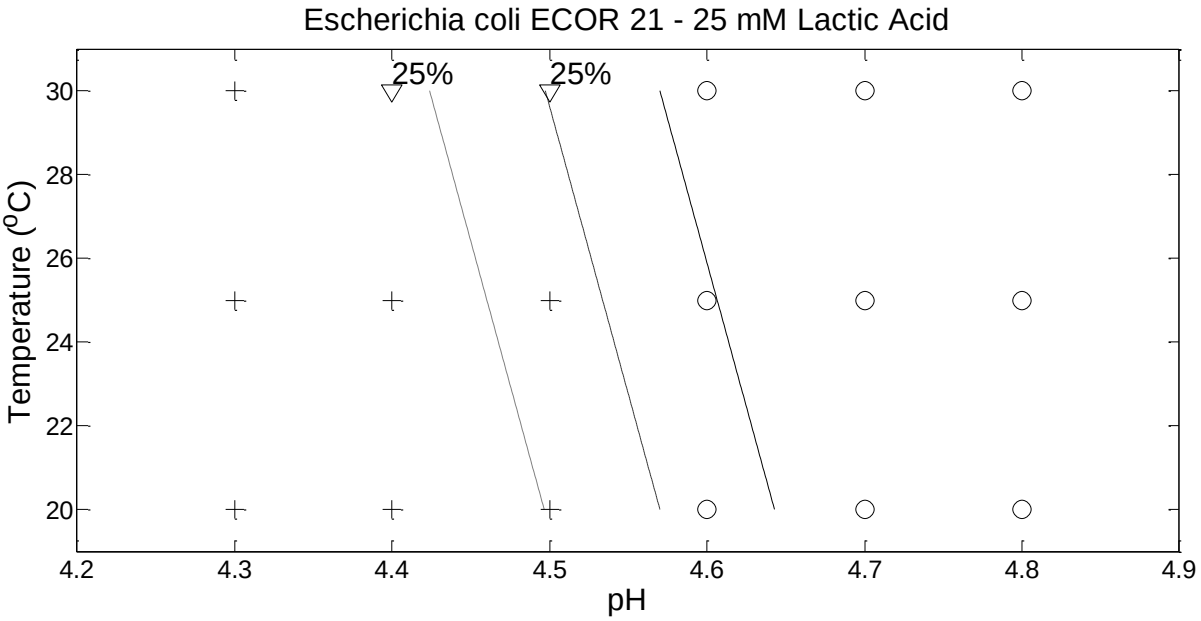
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-124.17	23.57	-5.27	0.00	-179.77	-85.44	0.00	0.00	0.00
pH	30.06	5.69	5.28	0.00	20.70	43.44	1.14E+13	9.73E+08	7.36E+18
LA	-0.70	0.14	-5.16	0.00	-1.02	-0.48	0.49	0.36	0.62
Temp	0.22	0.09	2.45	0.01	0.05	0.41	1.24	1.06	1.51

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	213.15	
pH	1	22.29	154	190.86	0.00
LA	1	123.77	153	67.09	0.00
Temp	1	7.06	152	60.02	0.01

AIC	68.02
Likelihood Ratio	5.58E-33
Log-Likelihood	-30.01




Escherichia coli ECOR 21 - 0 mM Lactic Acid
25%
50%
75%
12.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

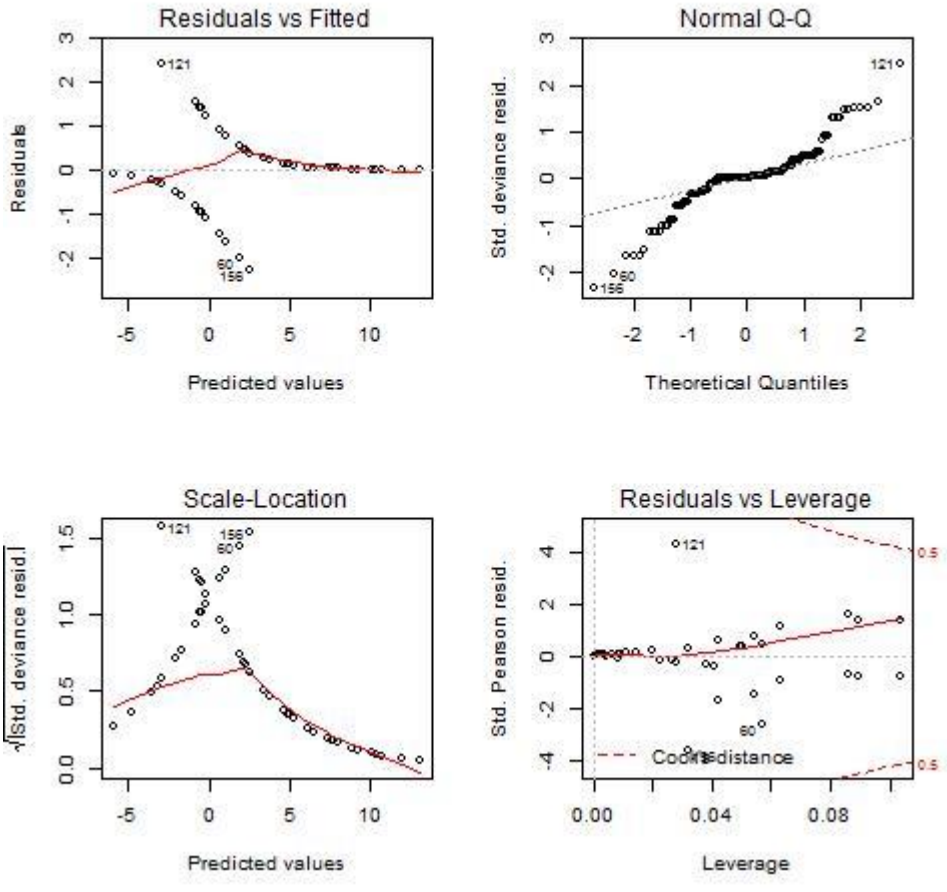

Escherichia coli ECOR 21 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

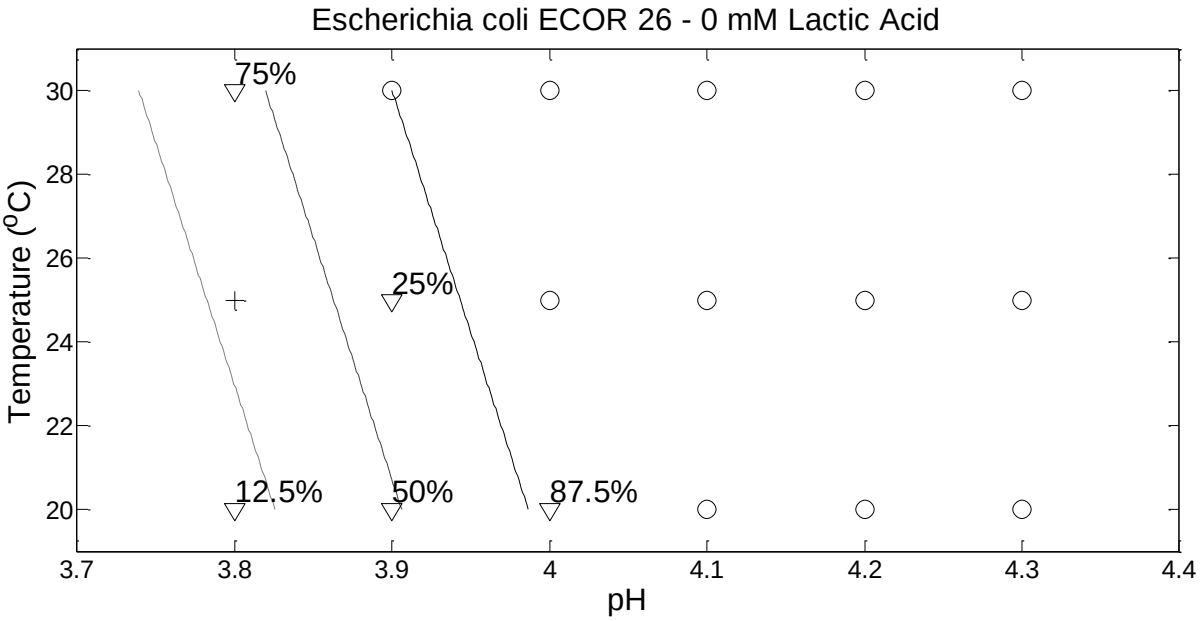
	O	H	Host	Locale	Notes
56. *E.coli* ECOR 26	104	21	human (infant)	USA	Group B1 strain from a healthy infant

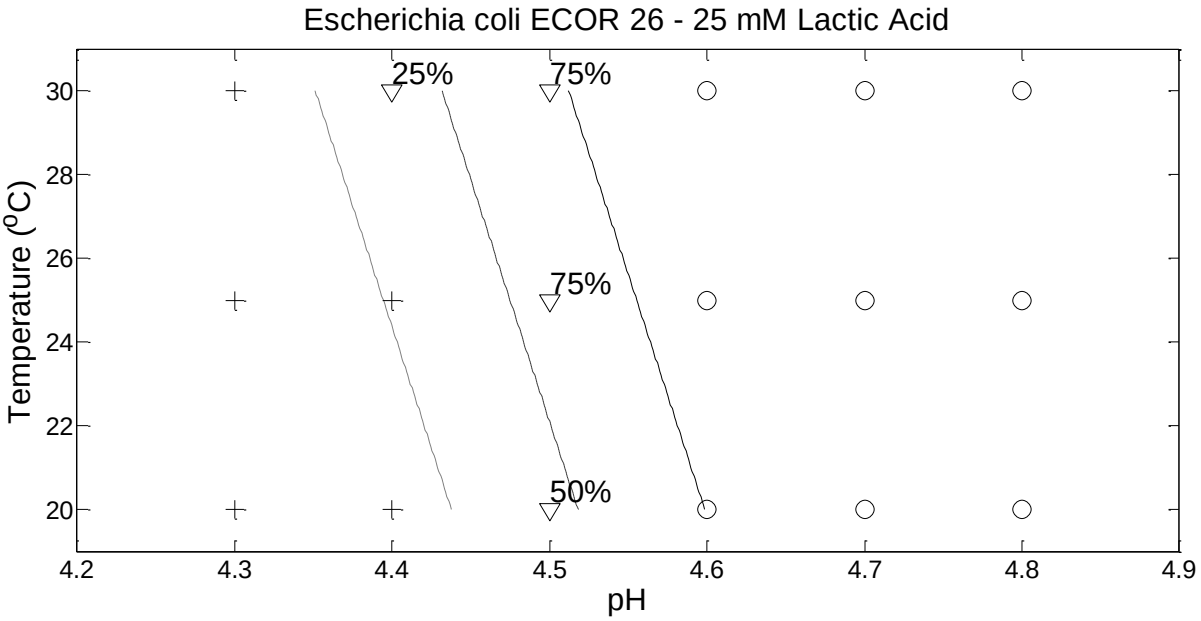
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-111.40	21.08	-5.29	0.00	-160.20	-76.17	0.00	0.00	0.00
pH	27.31	5.16	5.29	0.00	18.68	39.26	7.27E+11	1.29E+08	1.12E+17
LA	-0.67	0.13	-5.23	0.00	-0.96	-0.45	0.51	0.38	0.63
Temp	0.24	0.09	2.71	0.01	0.08	0.42	1.27	1.08	1.53

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	190.93	
pH	1	10.83	154	180.10	0.00
LA	1	106.53	153	73.57	0.00
Temp	1	8.85	152	64.72	0.00

AIC	72.72
Likelihood Ratio	3.55E-27
Log-Likelihood	-32.36




Escherichia coli ECOR 26 - 0 mM Lactic Acid
75%
25%
12.5%
50%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

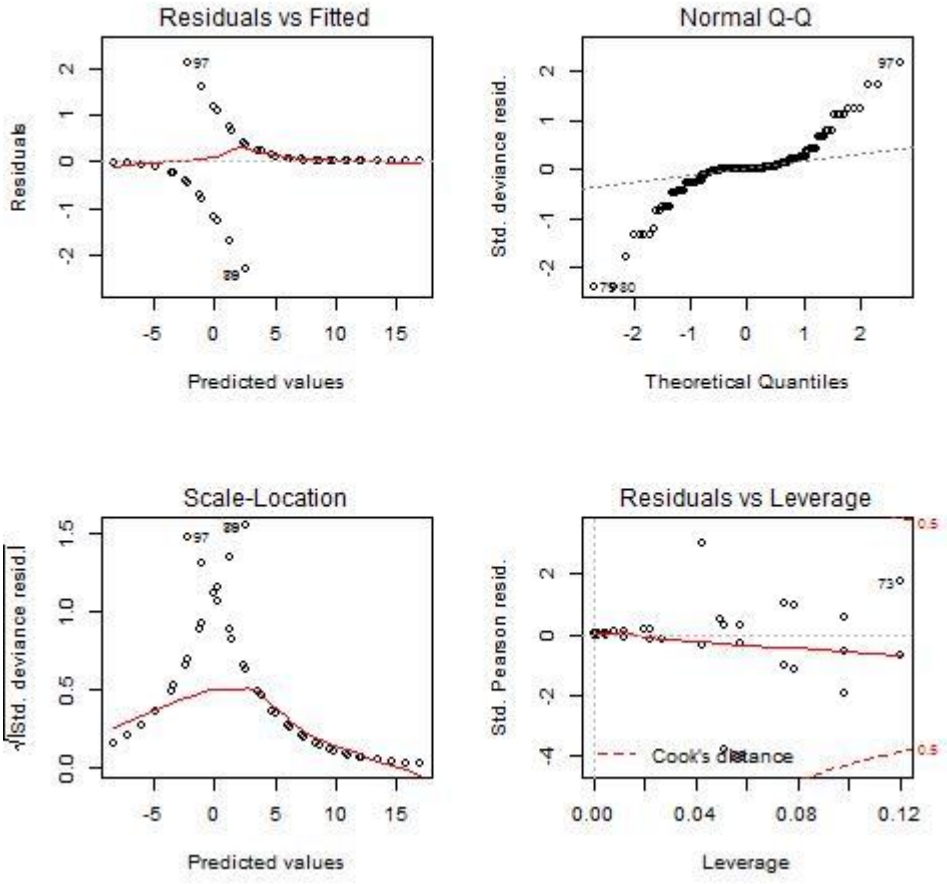

Escherichia coli ECOR 26 - 25 mM Lactic Acid
25%
75%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

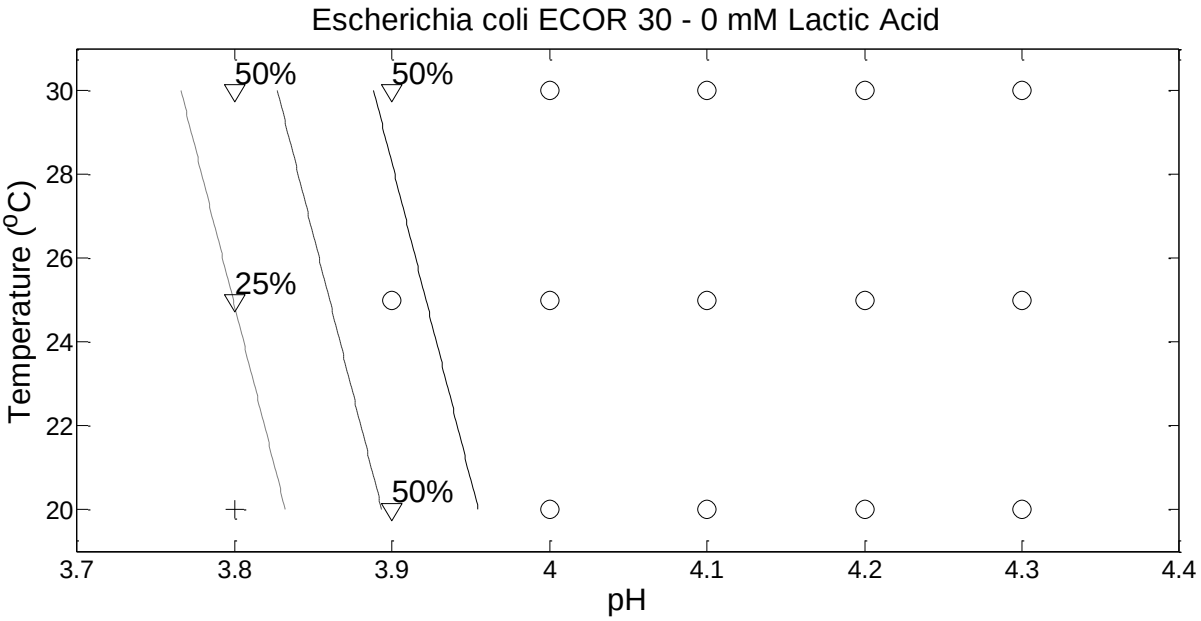
	O	H	Host	Locale	Notes
57. *E.coli* ECOR 30	113	21	bison	CAnada	Group B1 strain from a healthy bison

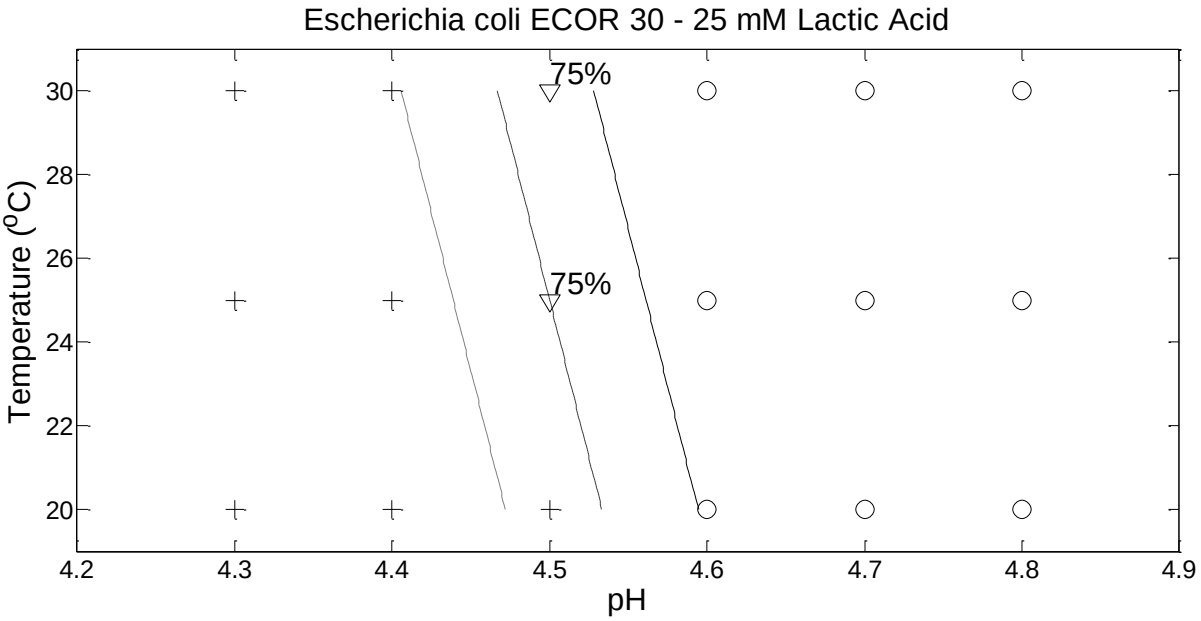
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-144.47	30.12	-4.80	0.00	-216.31	-95.59	0.00	0.00	0.00
pH	35.88	7.47	4.80	0.00	23.76	53.70	3.84E+15	2.08E+10	2.10E+23
LA	-0.92	0.19	-4.77	0.00	-1.38	-0.61	0.40	0.25	0.55
Temp	0.24	0.10	2.39	0.02	0.06	0.46	1.27	1.06	1.58

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	194.17	
pH	1	7.89	154	186.28	0.00
LA	1	128.58	153	57.70	0.00
Temp	1	6.94	152	50.77	0.01

AIC	58.77
Likelihood Ratio	6.98E-31
Log-Likelihood	-25.38




Escherichia coli ECOR 30 - 0 mM Lactic Acid
50%
50%
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

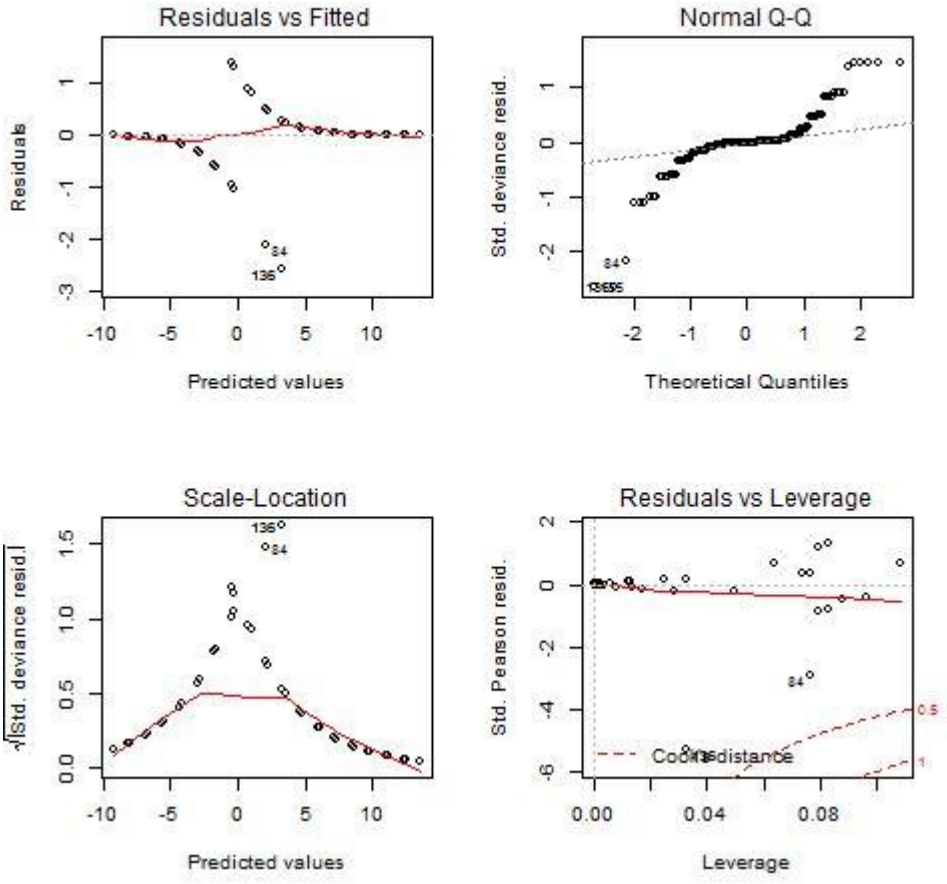

Escherichia coli ECOR 30 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

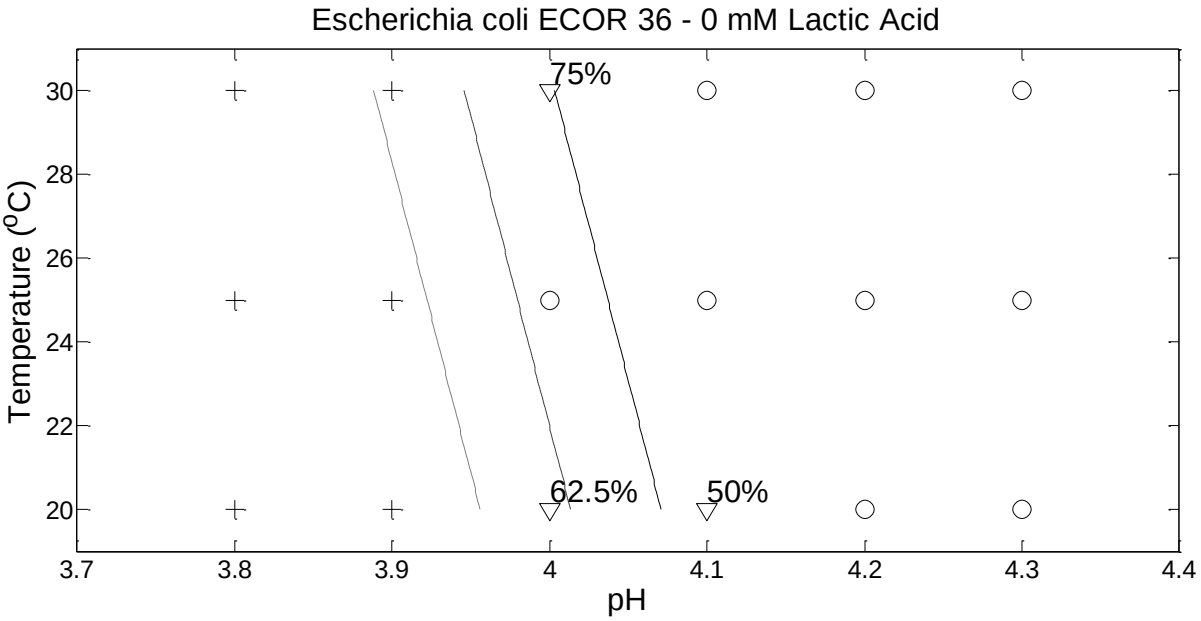
	O	H	Host	Locale	Notes
58. *E.coli* ECOR 36	79	25	human	USA	Group D strain from a healthy person

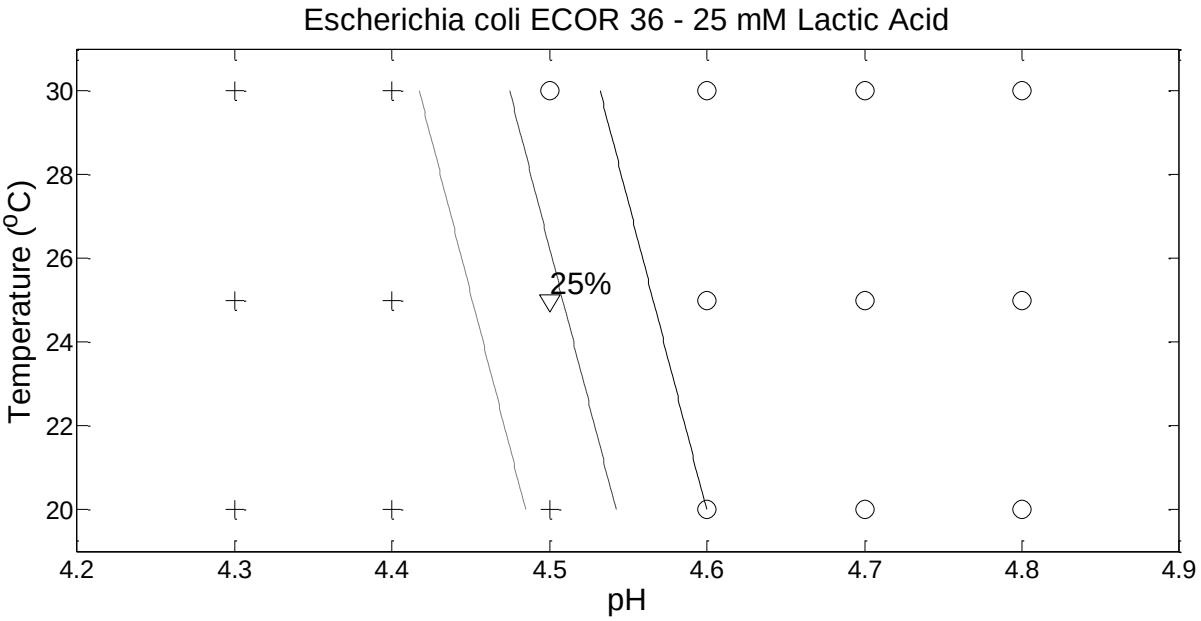
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-158.71	34.02	-4.67	0.00	-241.74	-104.64	0.00	0.00	0.00
pH	38.26	8.25	4.64	0.00	25.18	58.50	4.13E+16	8.60E+10	2.56E+25
LA	-0.81	0.18	-4.55	0.00	-1.24	-0.53	0.45	0.29	0.59
Temp	0.26	0.10	2.51	0.01	0.07	0.49	1.29	1.08	1.62

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	214.18	
pH	1	37.24	154	176.94	0.00
LA	1	121.96	153	54.97	0.00
Temp	1	7.87	152	47.11	0.01

AIC	55.11
Likelihood Ratio	5.45E-36
Log-Likelihood	-23.55




Escherichia coli ECOR 36 - 0 mM Lactic Acid
75%
62.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

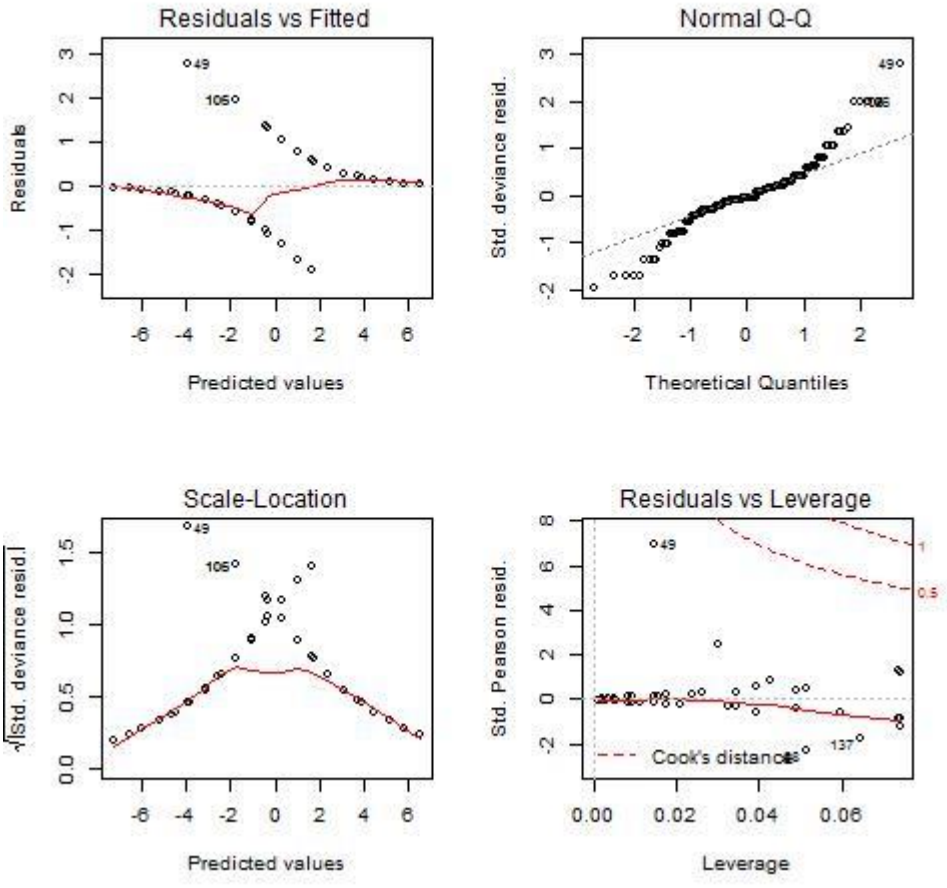

Escherichia coli ECOR 36 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

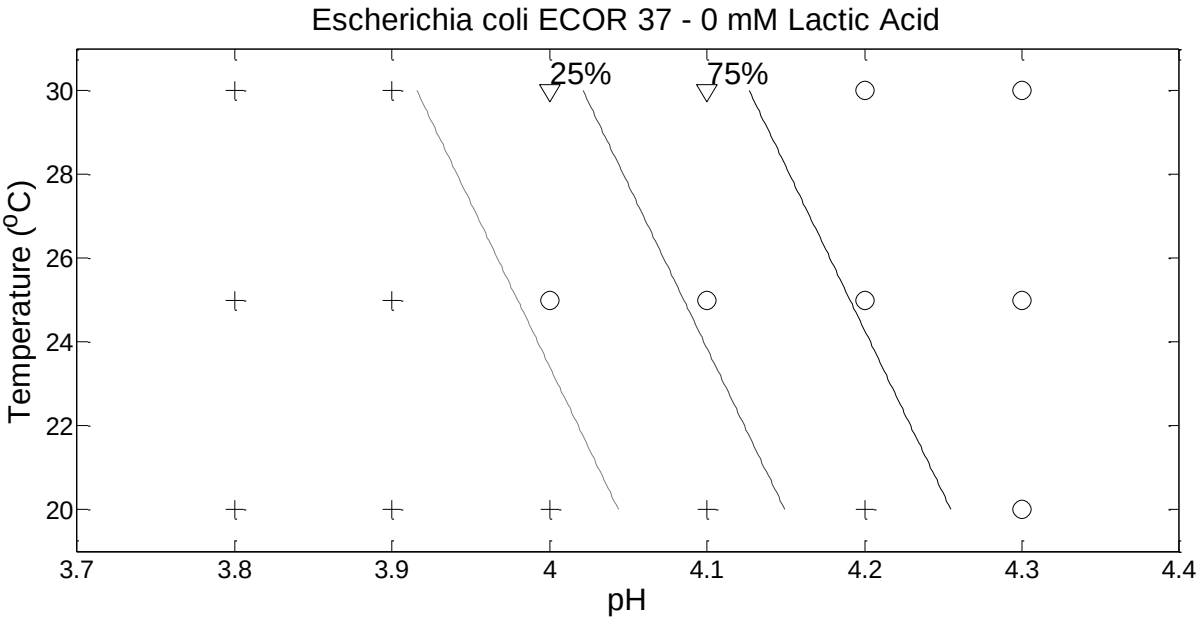
	O	H	Host	Locale	Notes
59. *E.coli* ECOR 37	N	N	marmoset	USA	Group E strain from a healthy marmoset in captivity

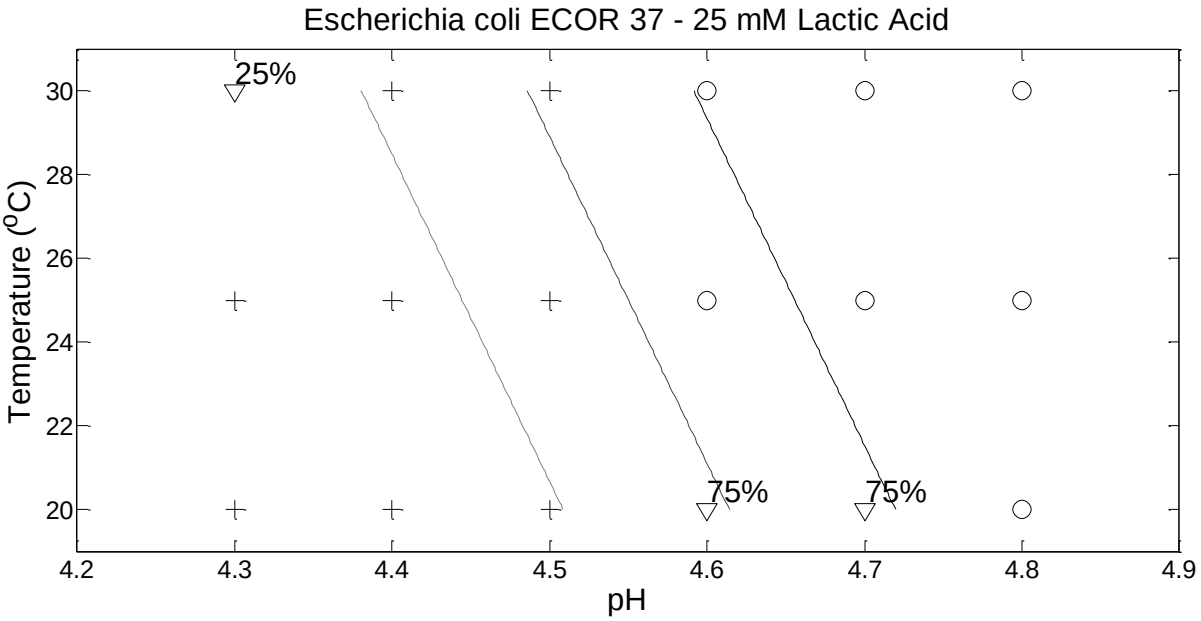
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-91.69	15.07	-6.09	0.00	-125.97	-66.07	0.00	0.00	0.00
pH	20.81	3.42	6.08	0.00	14.98	28.59	1.10E+09	3.21E+06	2.61E+12
LA	-0.39	0.07	-5.64	0.00	-0.54	-0.27	0.68	0.58	0.76
Temp	0.27	0.08	3.25	0.00	0.12	0.44	1.31	1.12	1.56

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	213.69	
pH	1	46.36	154	167.33	0.00
LA	1	77.47	153	89.86	0.00
Temp	1	13.32	152	76.54	0.00

AIC	84.54
Likelihood Ratio	1.55E-29
Log-Likelihood	-38.27




Escherichia coli ECOR 37 - 0 mM Lactic Acid
25%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

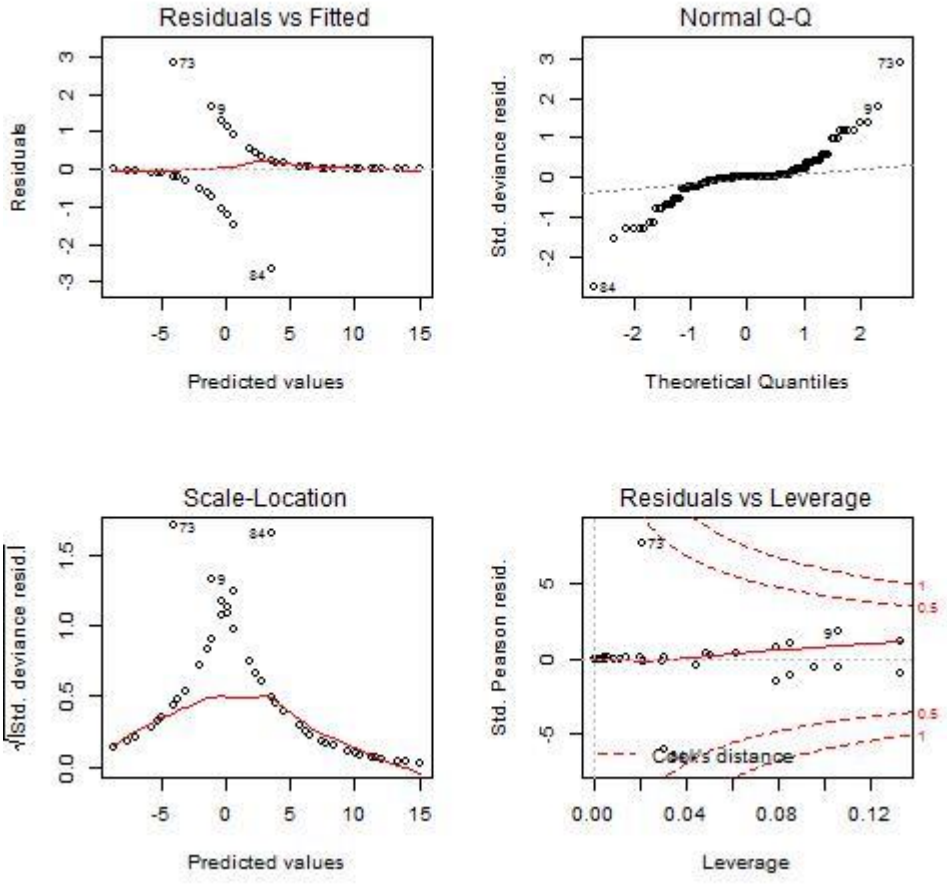

Escherichia coli ECOR 37 - 25 mM Lactic Acid
25%
75%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

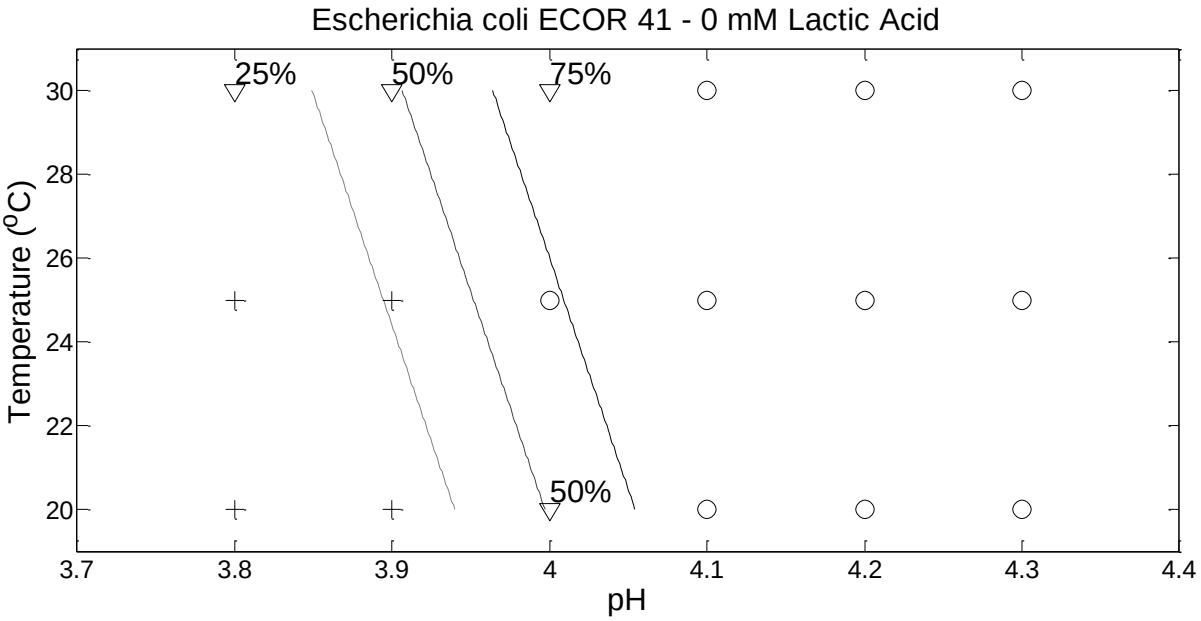
	O	H	Host	Locale	Notes
60. *E.coli* ECOR 41	7	NM	human	Tonga	Group D strain from a healthy person

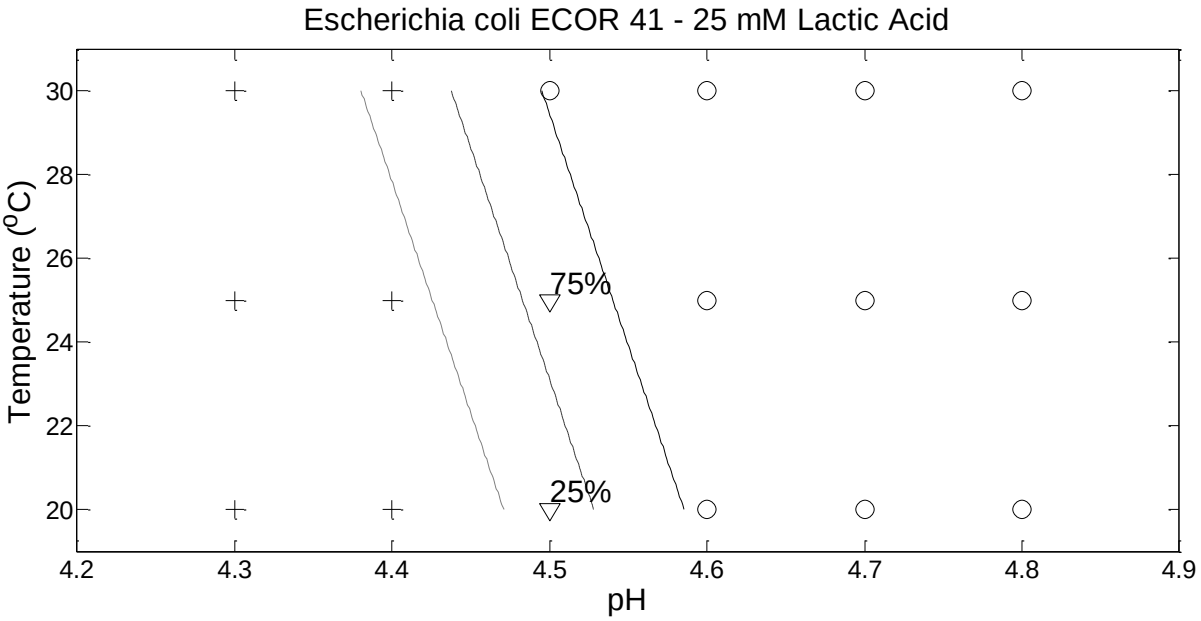
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-160.11	34.62	-4.62	0.00	-244.79	-105.19	0.00	0.00	0.00
pH	38.32	8.28	4.63	0.00	25.18	58.55	4.39E+16	8.60E+10	2.67E+25
LA	-0.81	0.18	-4.57	0.00	-1.25	-0.53	0.44	0.29	0.59
Temp	0.35	0.12	3.00	0.00	0.14	0.61	1.41	1.16	1.83

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	209.65	
pH	1	34.48	154	175.17	0.00
LA	1	114.34	153	60.83	0.00
Temp	1	13.01	152	47.81	0.00

AIC	55.81
Likelihood Ratio	7.36E-35
Log-Likelihood	-23.91




Escherichia coli ECOR 41 - 0 mM Lactic Acid
25%
50%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

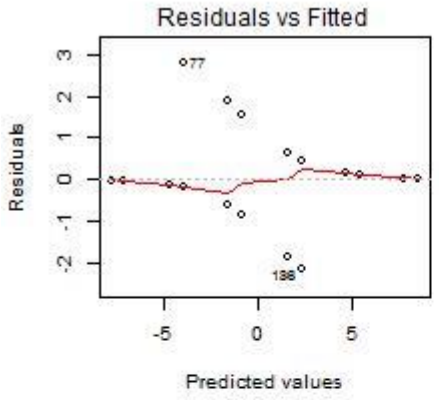

Escherichia coli ECOR 41 - 25 mM Lactic Acid
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

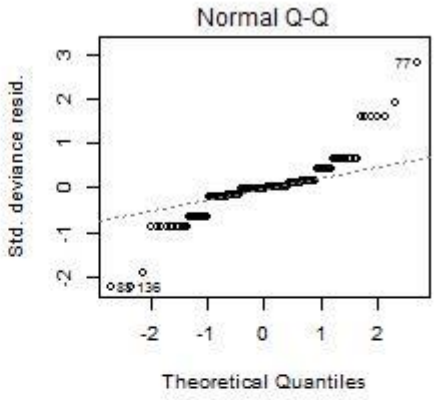
	O	H	Host	Locale	Notes
61. *E.coli* ECOR 42	N	26	human	USA	Group E strain from a healthy person

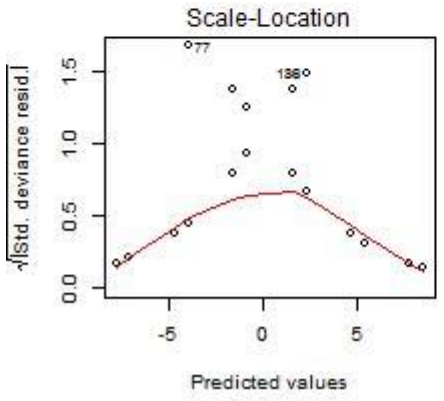
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-125.47	23.67	-5.30	0.00	-180.68	-86.50	0.00	0.00	0.00
pH	31.16	5.89	5.29	0.00	21.46	44.92	3.41E+13	2.10E+09	3.21E+19
LA	-0.65	0.13	-5.07	0.00	-0.95	-0.44	0.52	0.38	0.64

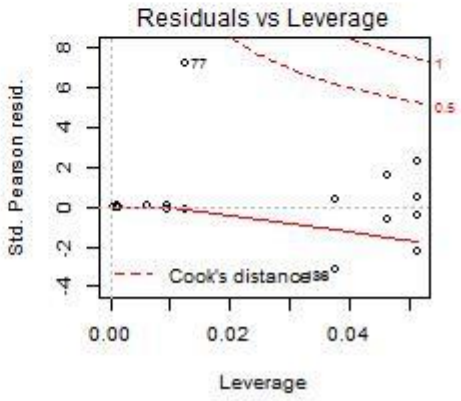
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.16	
pH	1	38.33	154	177.83	0.00
LA	1	121.96	153	55.86	0.00

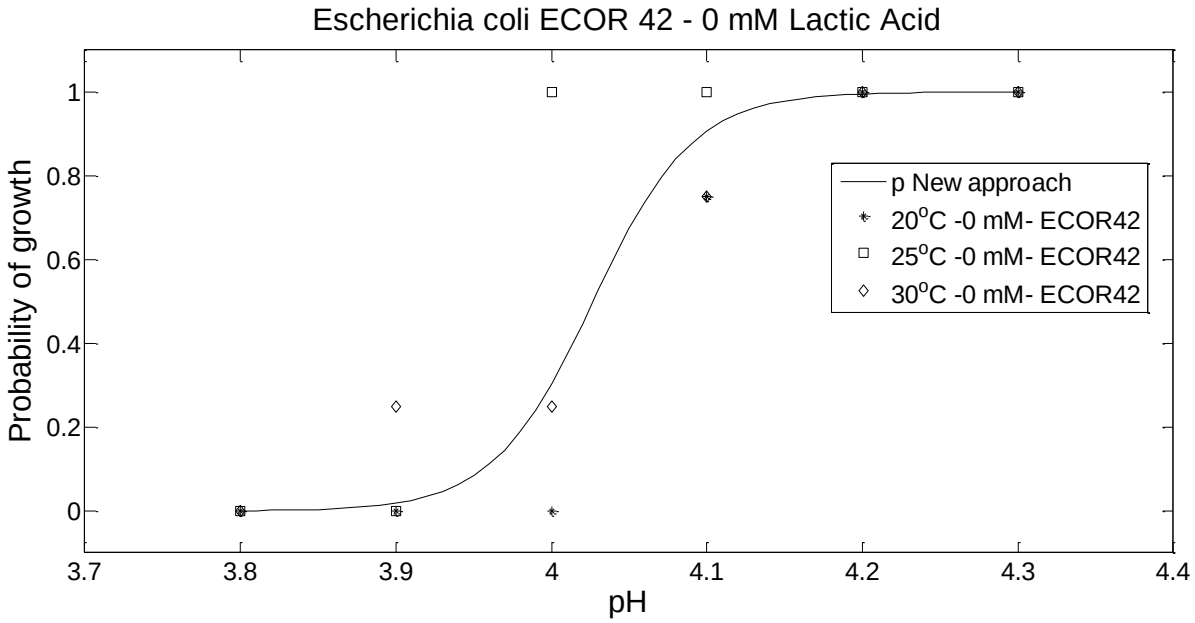
AIC	61.86
Likelihood Ratio	1.56E-35
Log-Likelihood	-27.93

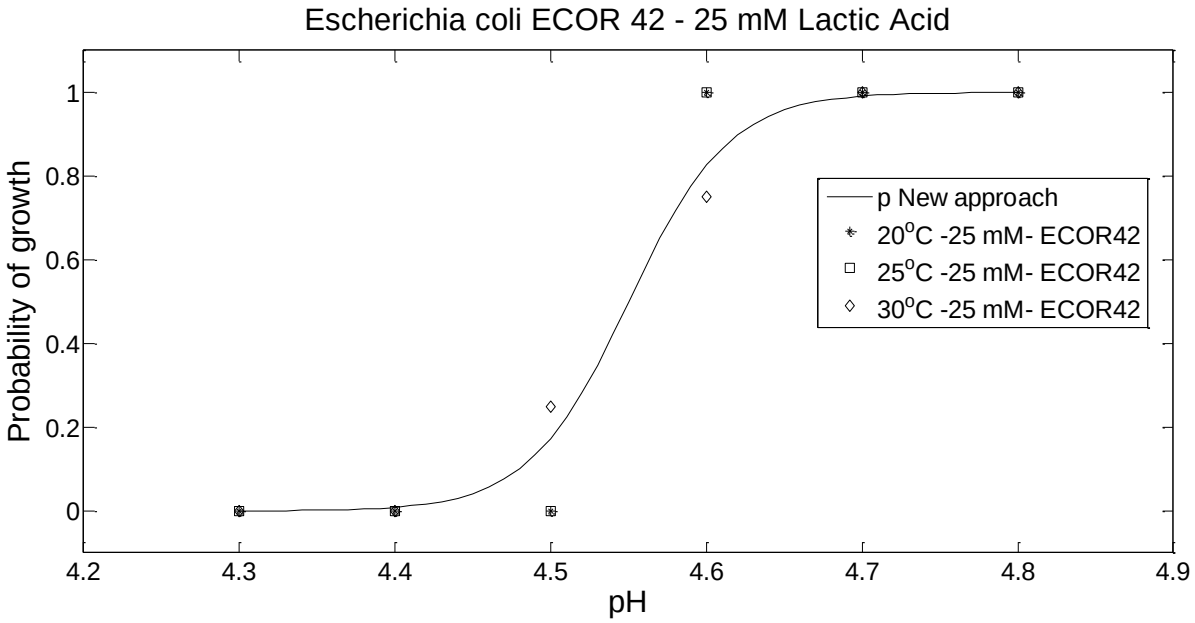


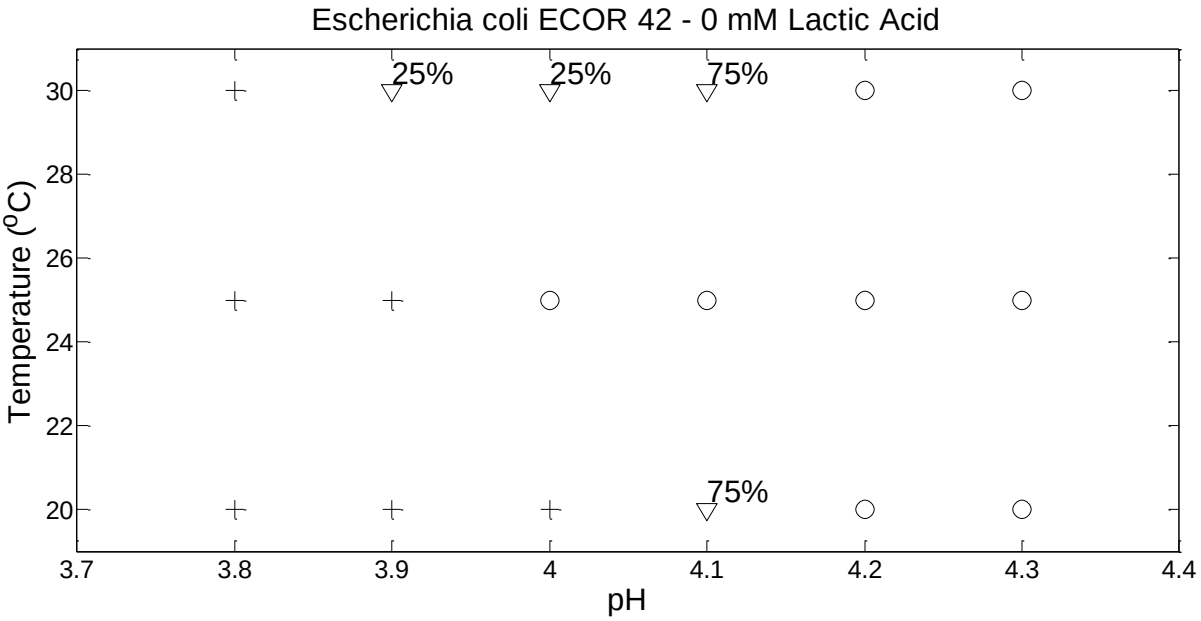


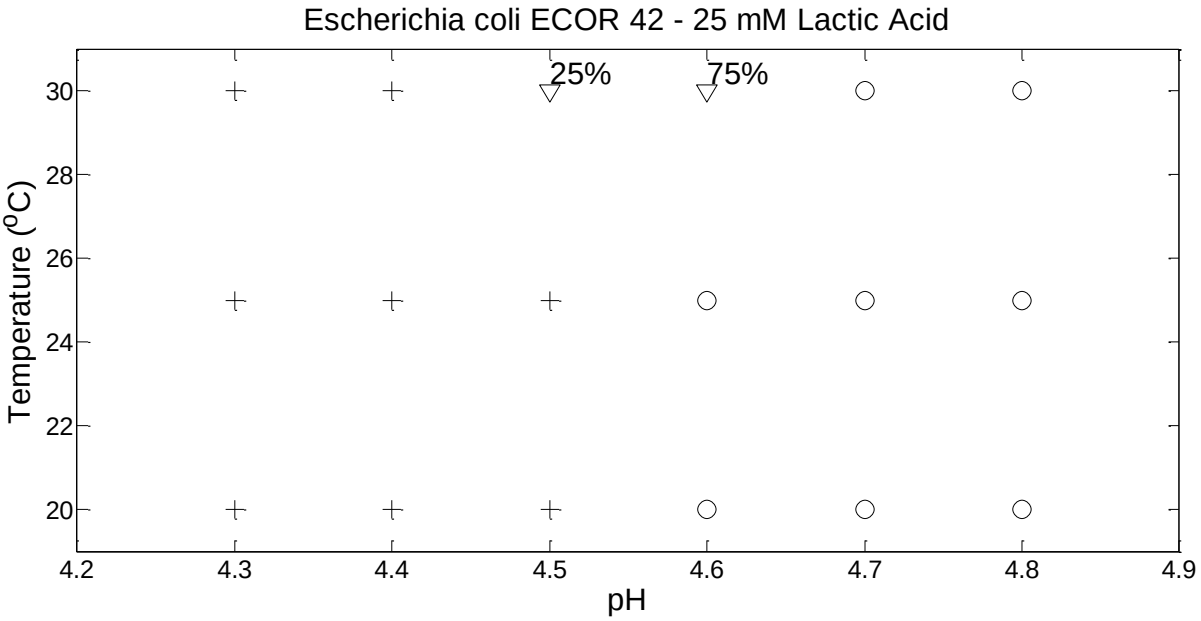





Escherichia coli ECOR 42 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- ECOR42
25°C -0 mM- ECOR42
30°C -0 mM- ECOR42
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ECOR 42 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- ECOR42
25°C -25 mM- ECOR42
30°C -25 mM- ECOR42
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli ECOR 42 - 0 mM Lactic Acid
25%
25%
75%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

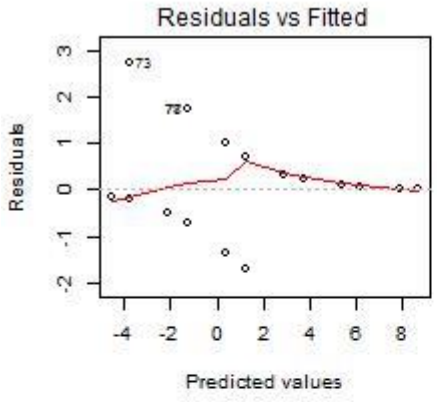

Escherichia coli ECOR 42 - 25 mM Lactic Acid
25%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

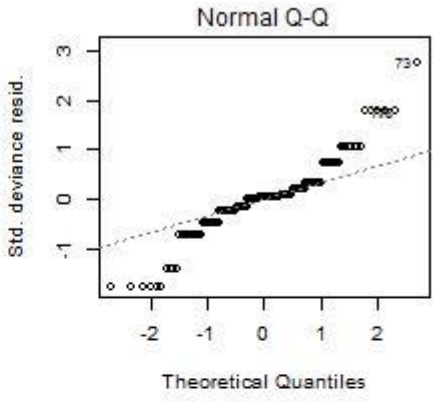
62. *E.coli* ECOR 43	O	H	Host	Locale	Notes
	N	N	human	Sweden	Group E strain from a healthy person

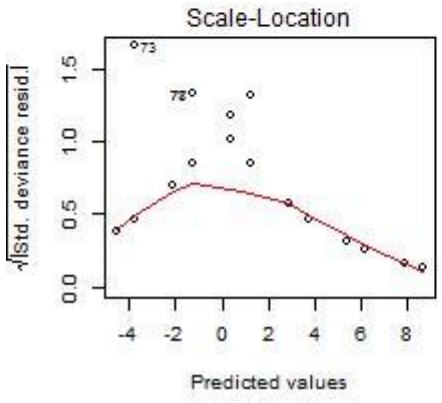
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-98.01	16.90	-5.80	0.00	-136.39	-69.38	0.00	0.00	0.00
pH	24.81	4.28	5.80	0.00	17.56	34.53	5.96E+10	4.25E+07	9.88E+14
LA	-0.53	0.09	-5.58	0.00	-0.74	-0.37	0.59	0.48	0.69

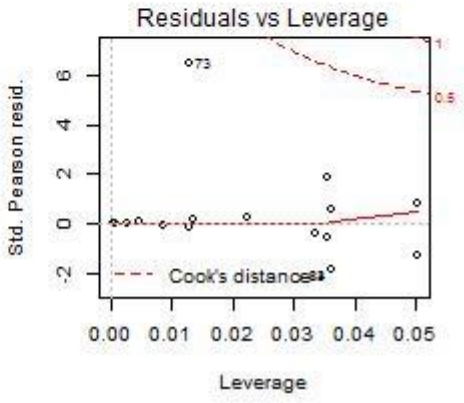
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	207.88	
pH	1	29.32	154	178.56	0.00
LA	1	106.16	153	72.40	0.00

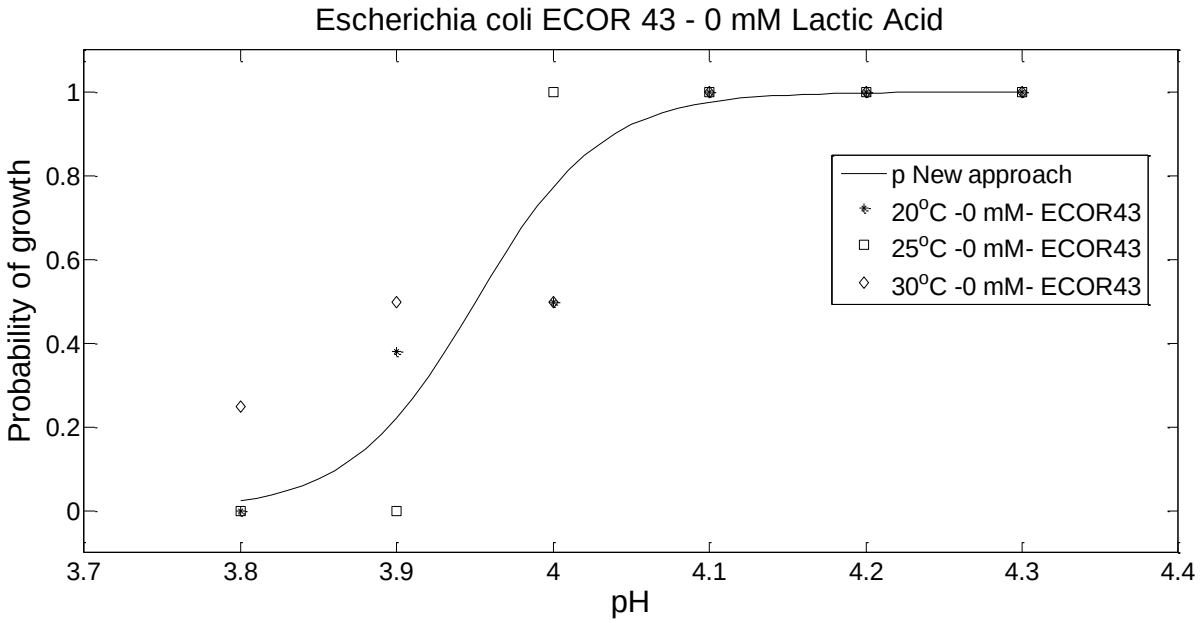
AIC	78.40
Likelihood Ratio	3.81E-30
Log-Likelihood	-36.20

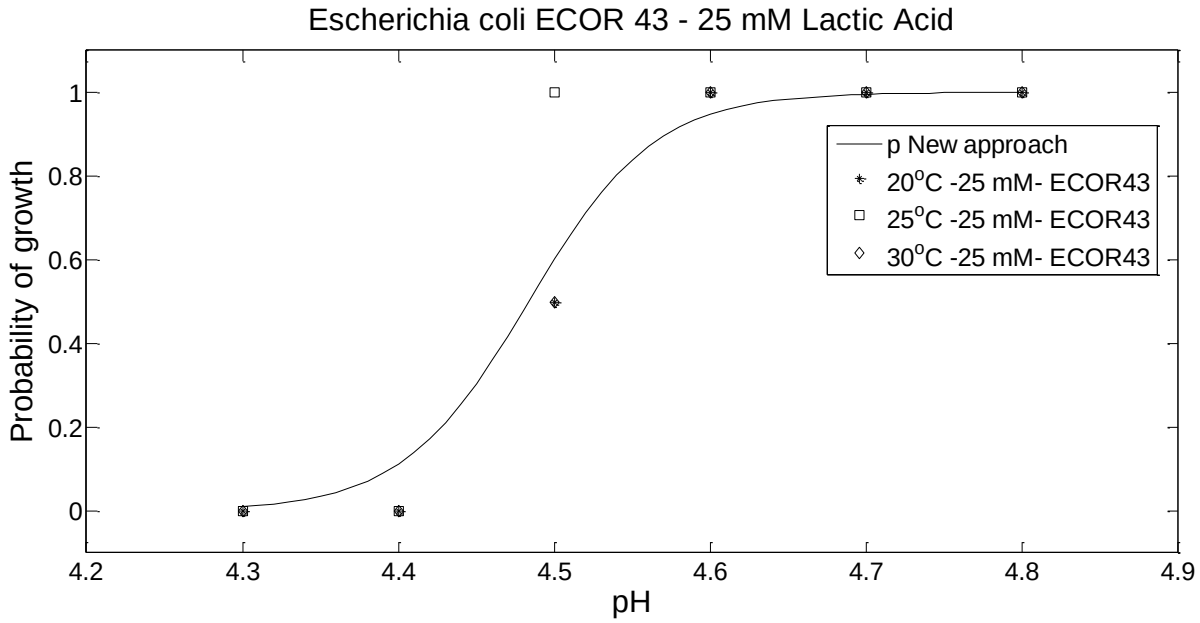


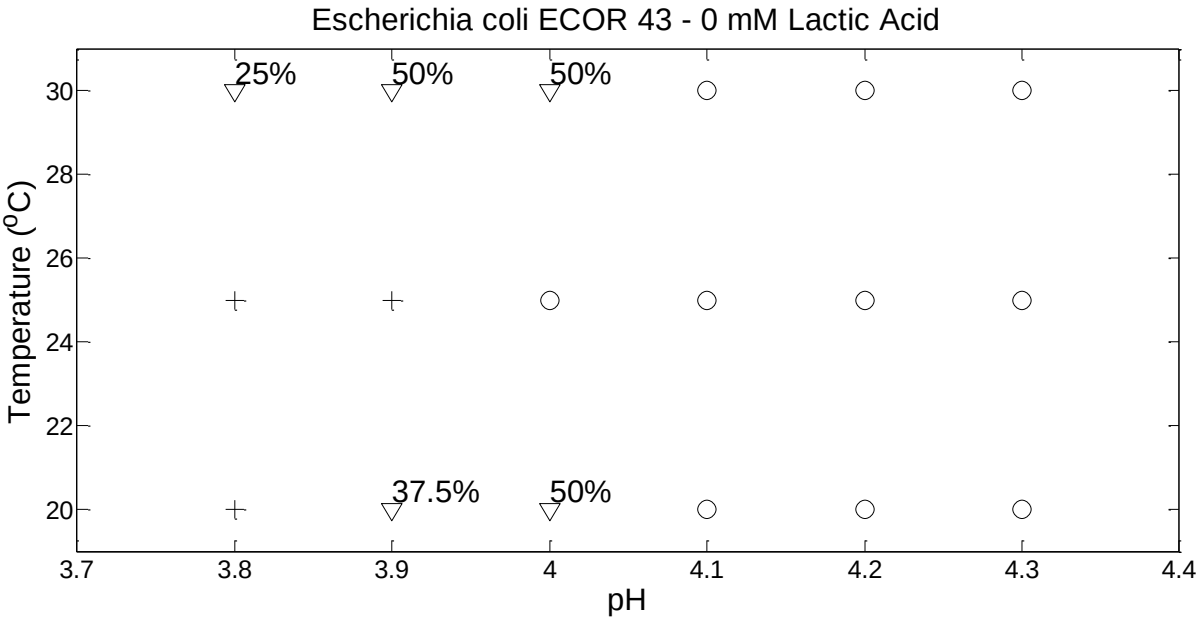


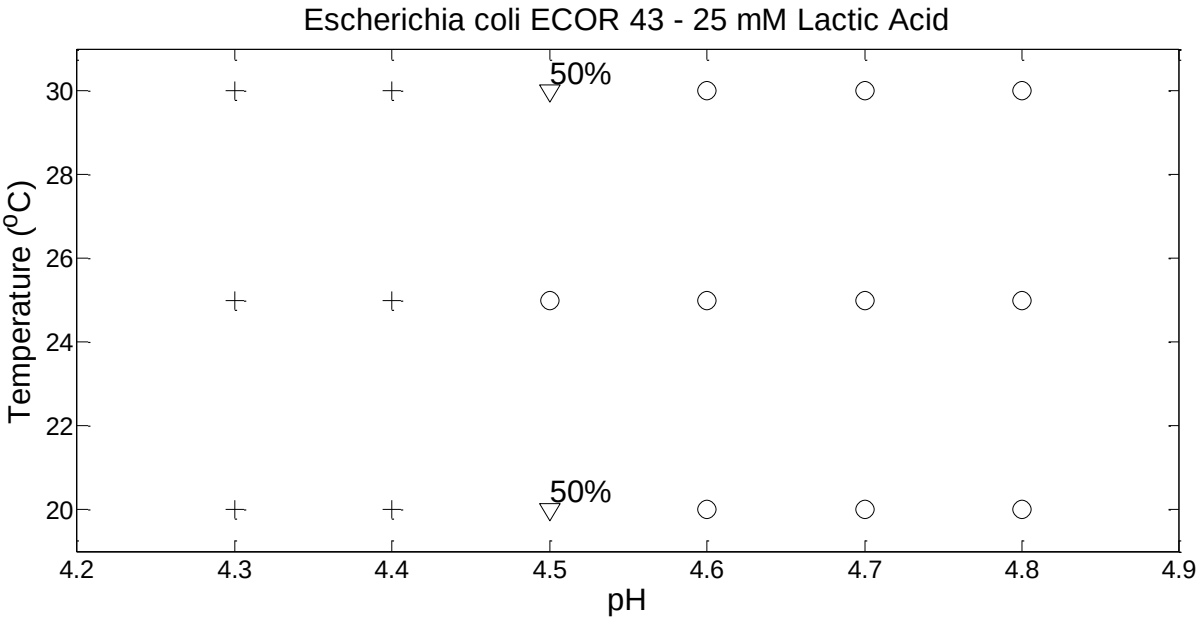





Escherichia coli ECOR 43 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- ECOR43
25°C -0 mM- ECOR43
30°C -0 mM- ECOR43
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ECOR 43 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- ECOR43
25°C -25 mM- ECOR43
30°C -25 mM- ECOR43
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli ECOR 43 - 0 mM Lactic Acid
25%
50%
50%
37.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

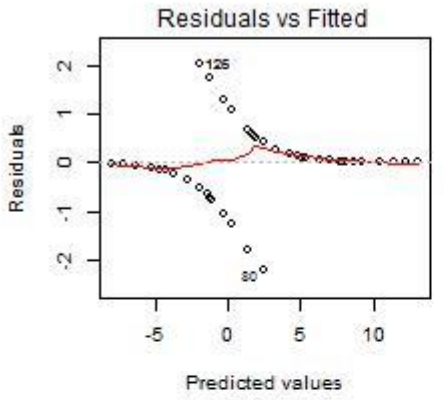

Escherichia coli ECOR 43 - 25 mM Lactic Acid
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

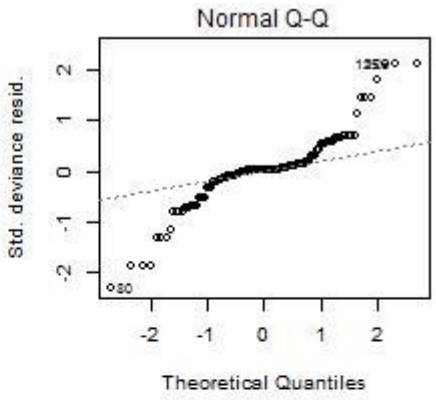
	O	H	Host	Locale	Notes
63. *E.coli* ECOR 47	M	18	sheep	New Guinea	Group D strain from a healthy sheep

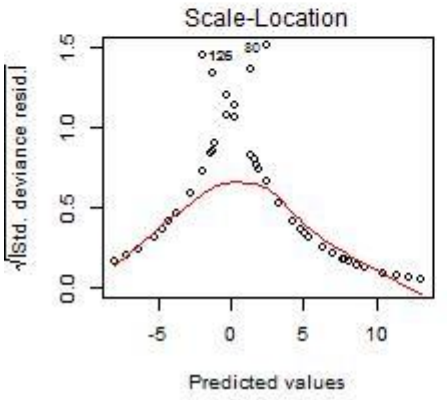
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-194.41	44.19	-4.40	0.00	-296.54	-119.40	0.00	0.00	0.00
pH	47.11	10.67	4.41	0.00	29.01	71.78	2.89E+20	3.95E+12	1.49E+31
LA	-0.78	0.15	-5.22	0.00	-1.13	-0.53	0.46	0.32	0.59
Temp	3.06	1.18	2.59	0.01	0.91	5.65	21.40	2.50	283.40
pH:Temp	-0.67	0.28	-2.43	0.02	-1.28	-0.17	0.51	0.28	0.85

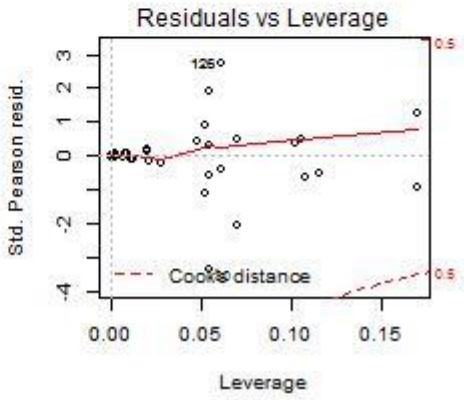
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	207.88	
pH	1	9.53	154	198.35	0.00
LA	1	125.49	153	72.86	0.00
Temp	1	8.40	152	64.45	0.00
pH:Temp	1	6.95	151	57.50	0.01

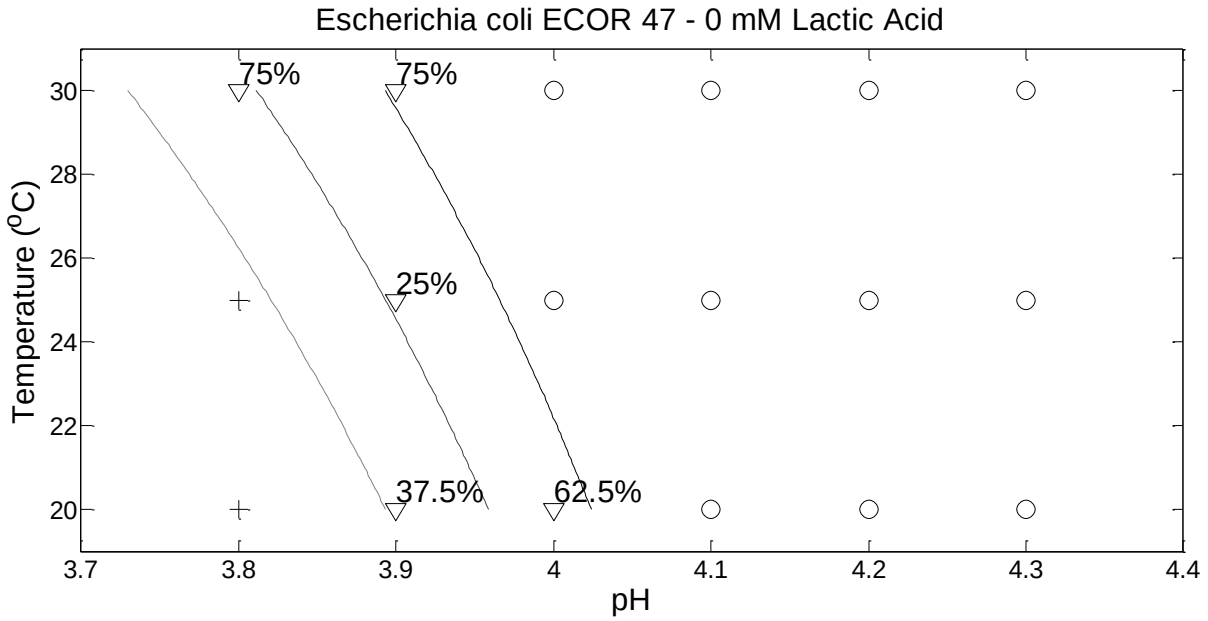
AIC	67.50
Likelihood Ratio	1.69E-31
Log-Likelihood	-28.75

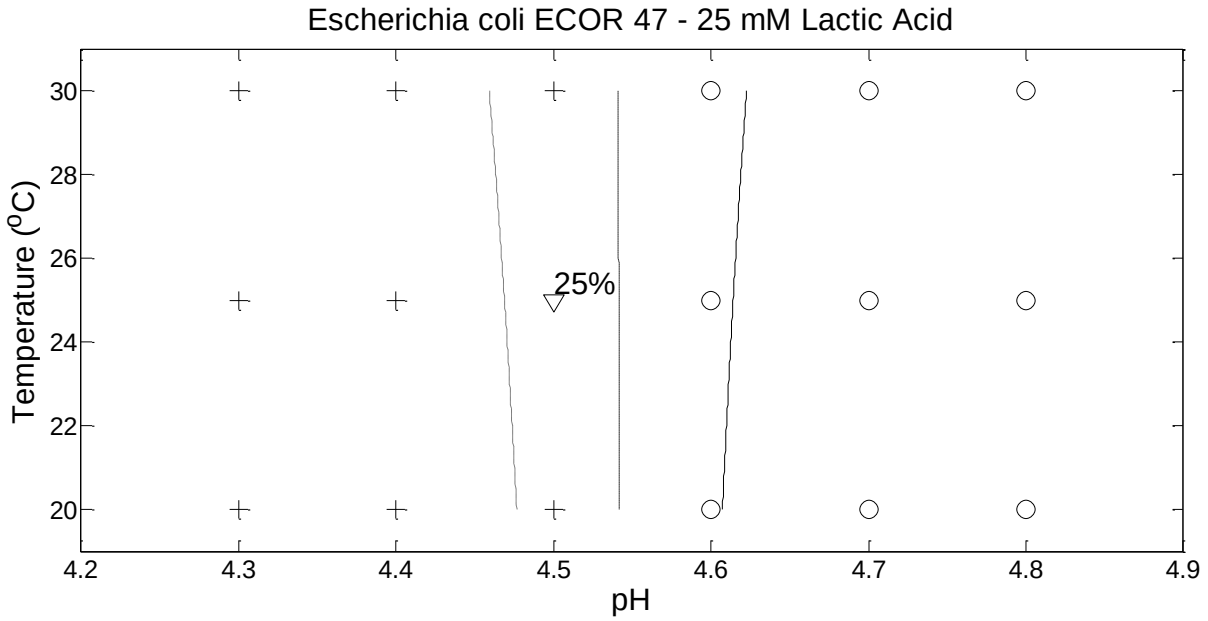









Escherichia coli ECOR 47 - 0 mM Lactic Acid
75%
75%
25%
37.5%
62.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

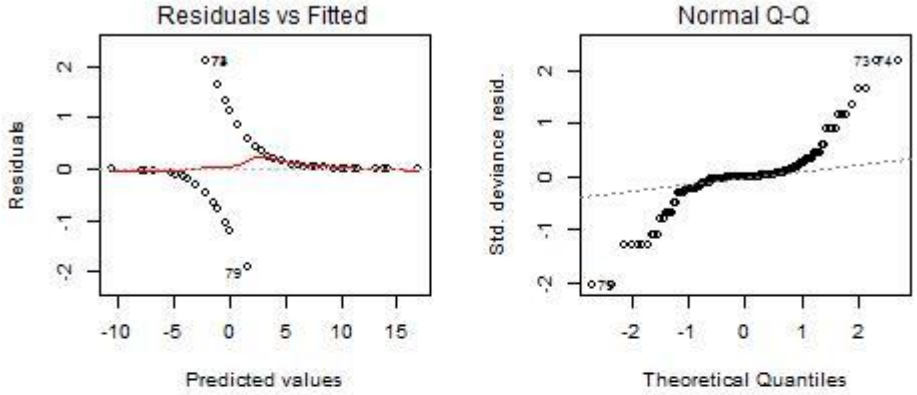

Escherichia coli ECOR 47 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

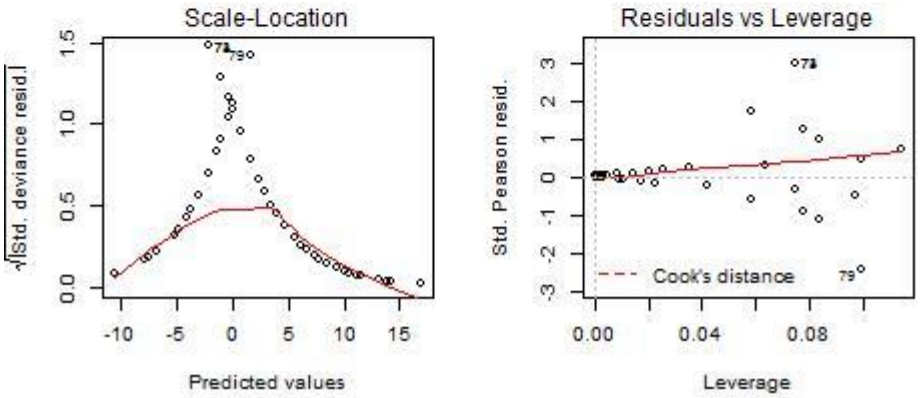
	O	H	Host	Locale	Notes
64. *E.coli* ECOR 49	2	NM	human	Sweden	Group D strain from a healthy person

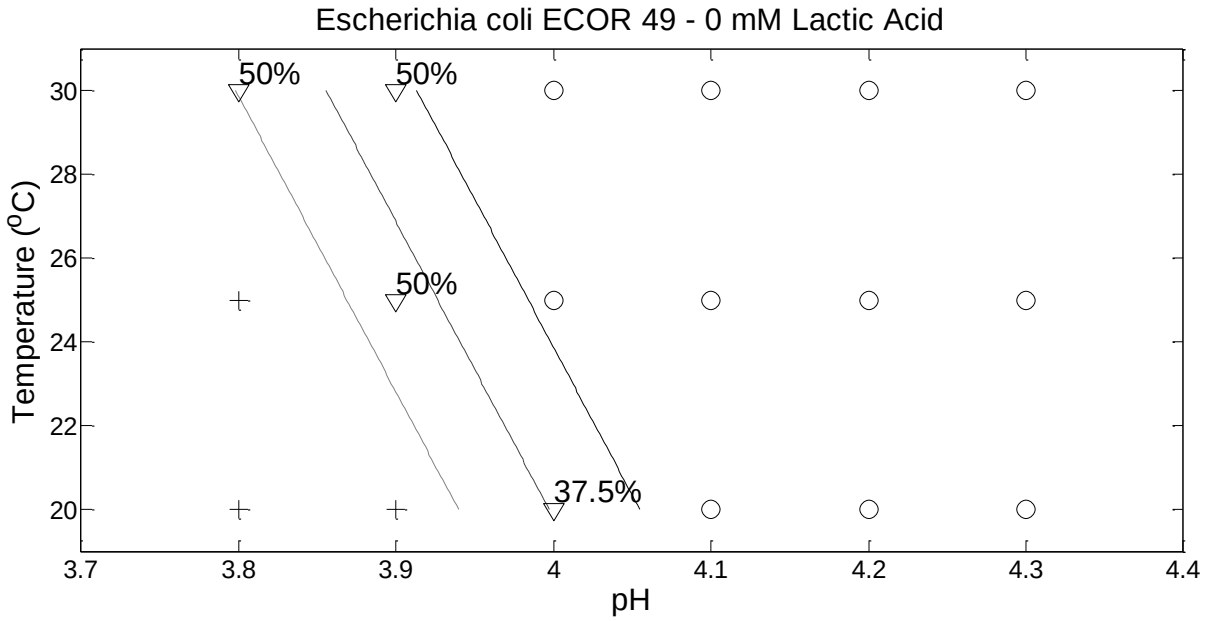
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-163.40	35.53	-4.60	0.00	-250.88	-107.02	0.00	0.00	0.00
pH	38.17	8.28	4.61	0.00	25.00	58.45	3.79E+16	7.23E+10	2.42E+25
LA	-0.89	0.20	-4.54	0.00	-1.37	-0.58	0.41	0.25	0.56
Temp	0.54	0.15	3.59	0.00	0.29	0.91	1.72	1.34	2.49

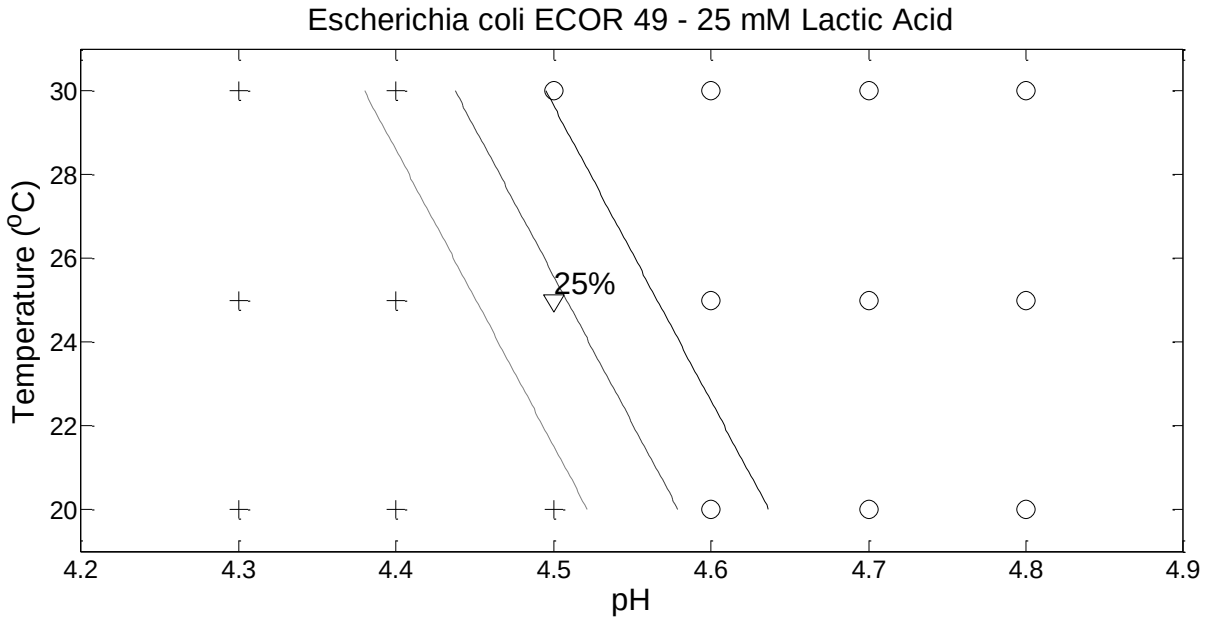
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	209.65	
pH	1	22.67	154	186.99	0.00
LA	1	111.68	153	75.31	0.00
Temp	1	27.50	152	47.81	0.00

AIC	55.81
Likelihood Ratio	7.33E-35
Log-Likelihood	-23.90






Escherichia coli ECOR 49 - 0 mM Lactic Acid
50%
50%
50%
37.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

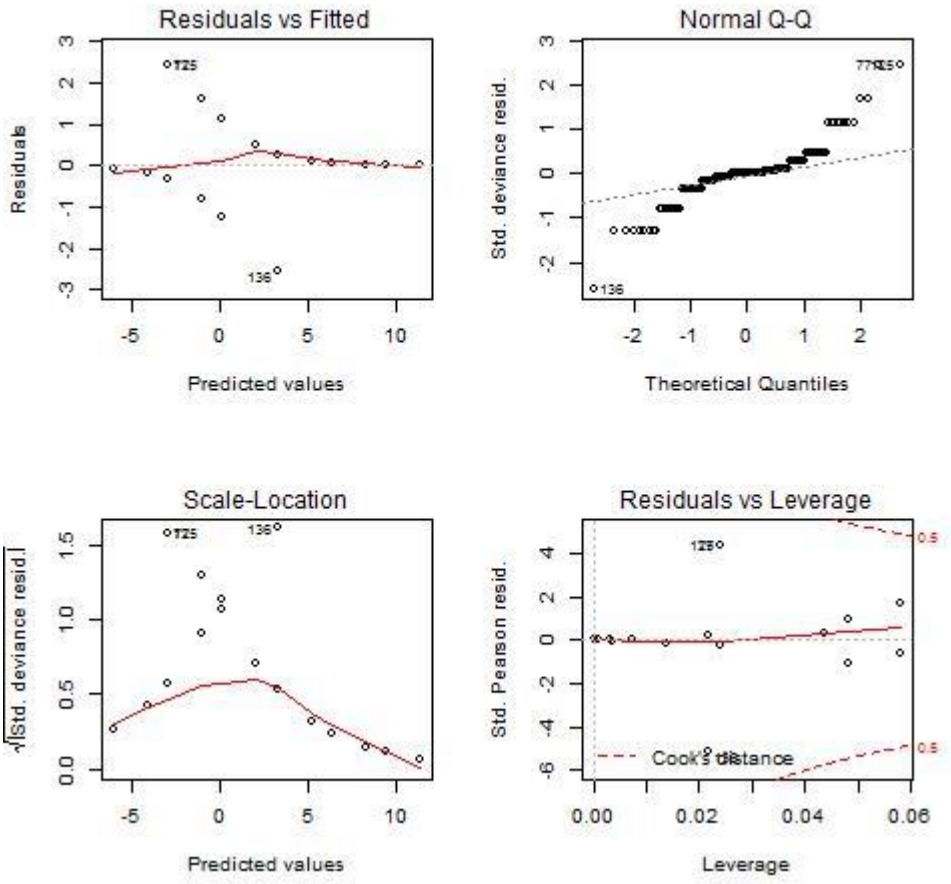

Escherichia coli ECOR 49 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

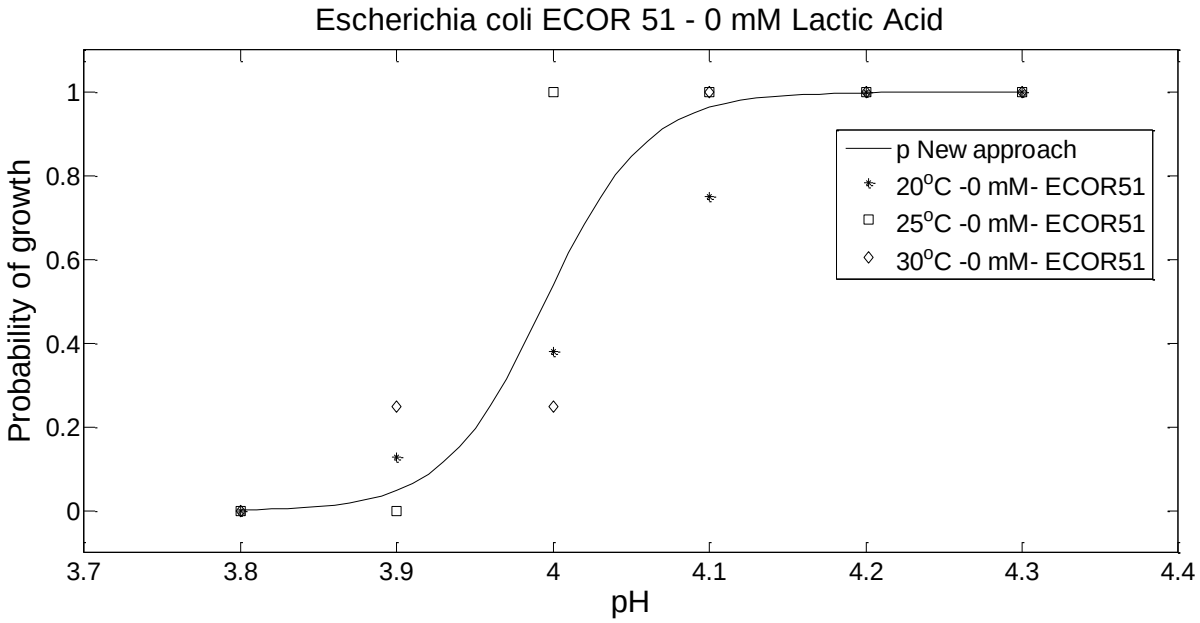
65. *E.coli* ECOR 51	O	H	Host	Locale	Notes
	25	N	Human (infant)	USA	Group B2 strain from a healthy infant

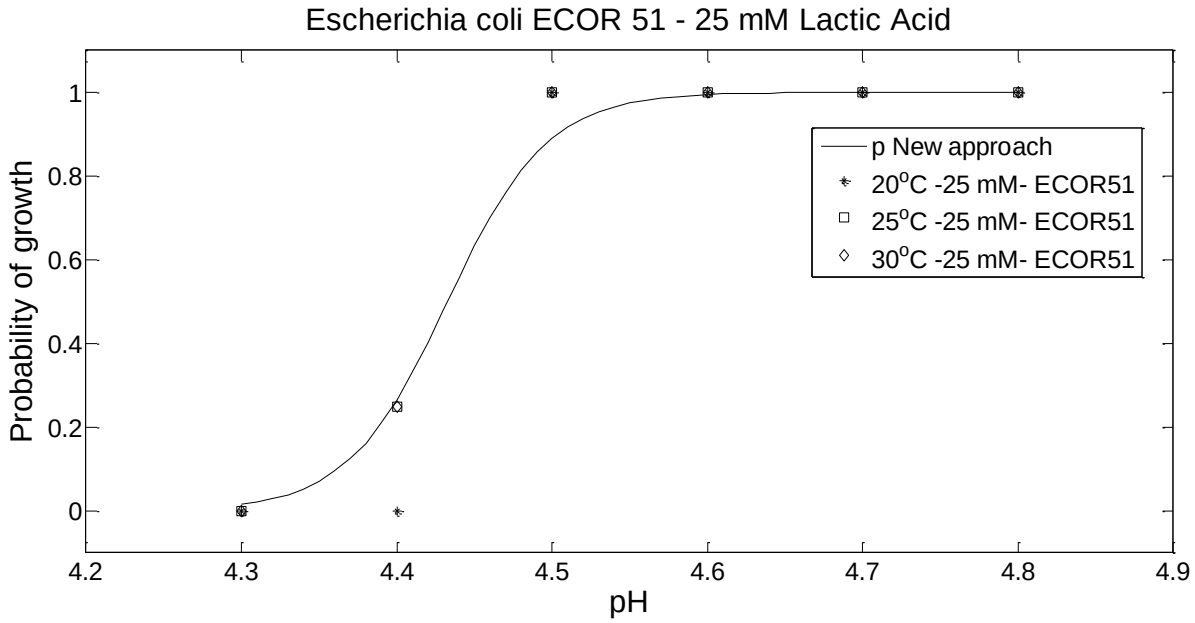
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-124.22	24.27	-5.12	0.00	-182.43	-84.71	0.00	0.00	0.00
pH	31.09	6.08	5.12	0.00	21.20	45.66	3.19E+13	1.61E+09	6.78E+19
LA	-0.54	0.11	-4.97	0.00	-0.80	-0.36	0.58	0.45	0.70

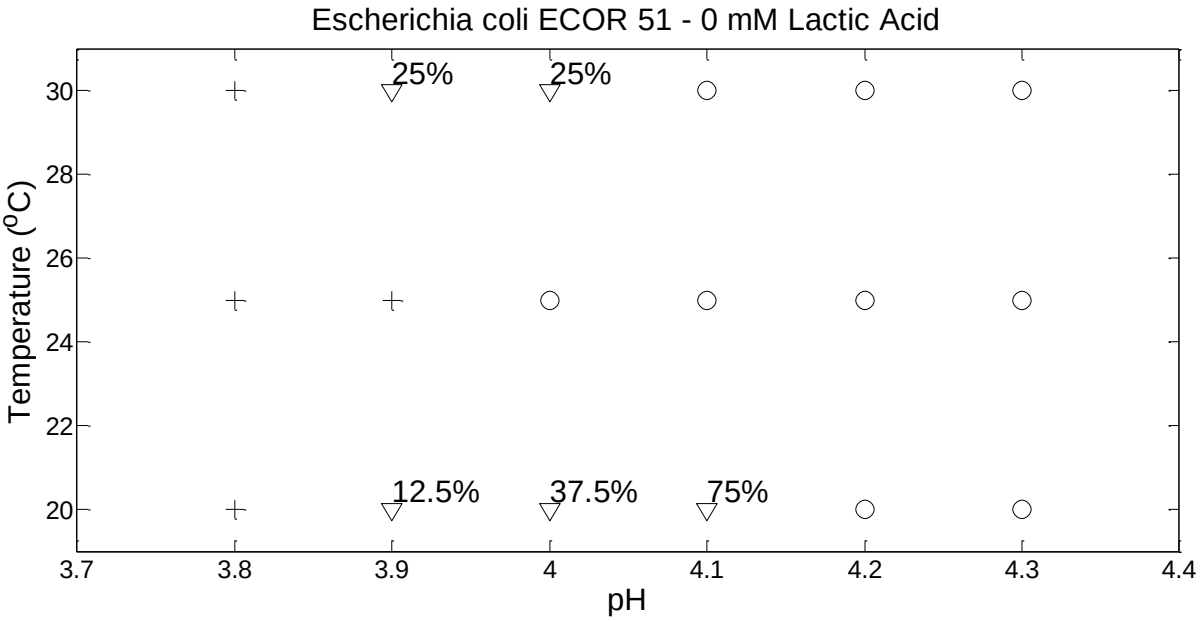
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	208.79	
pH	1	57.04	154	151.75	0.00
LA	1	93.69	153	58.06	0.00

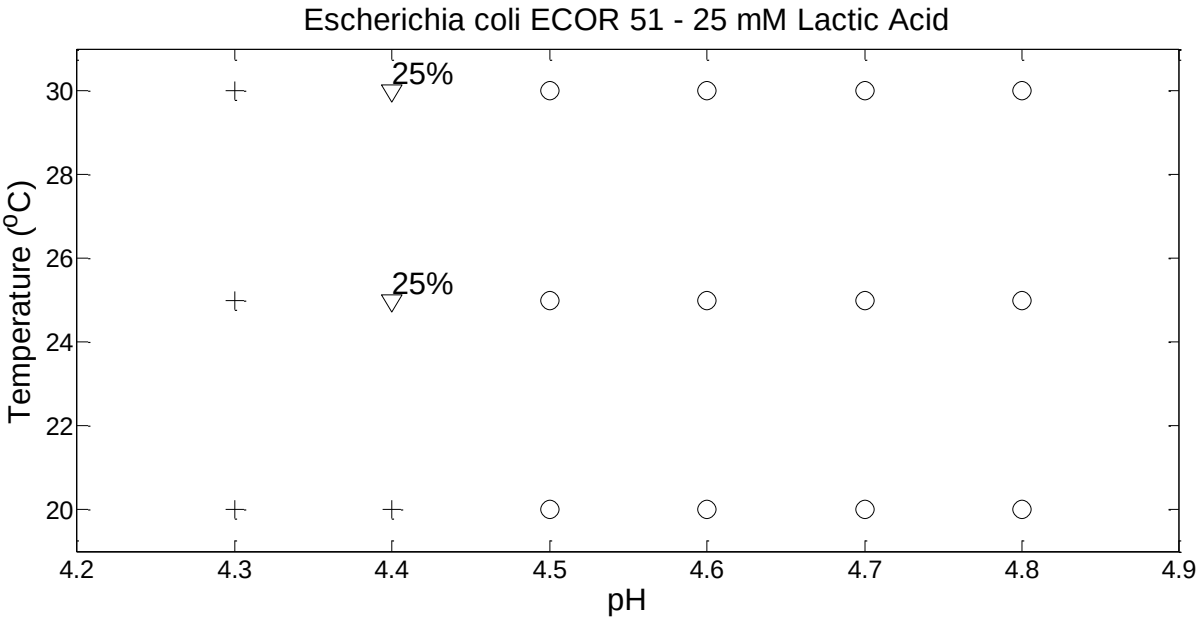
AIC	64.06
Likelihood Ratio	1.86E-33
Log-Likelihood	-29.03




Escherichia coli ECOR 51 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- ECOR51
25°C -0 mM- ECOR51
30°C -0 mM- ECOR51
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ECOR 51 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- ECOR51
25°C -25 mM- ECOR51
30°C -25 mM- ECOR51
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli ECOR 51 - 0 mM Lactic Acid
25%
25%
12.5%
37.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

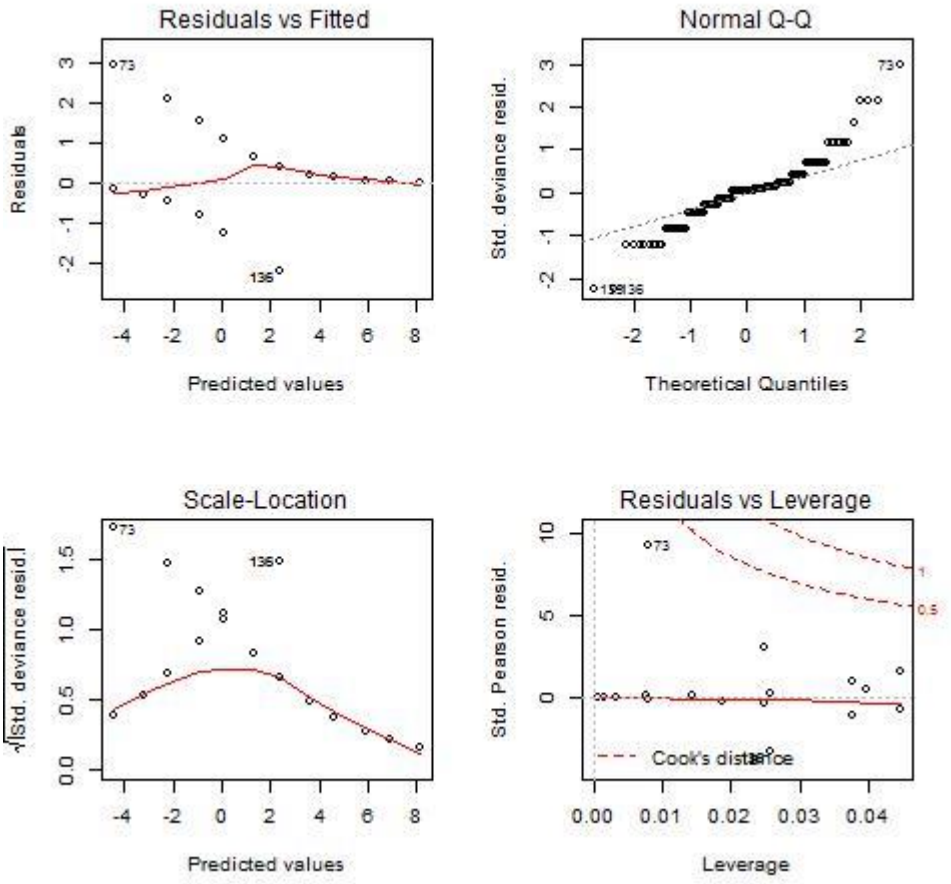

Escherichia coli ECOR 51 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

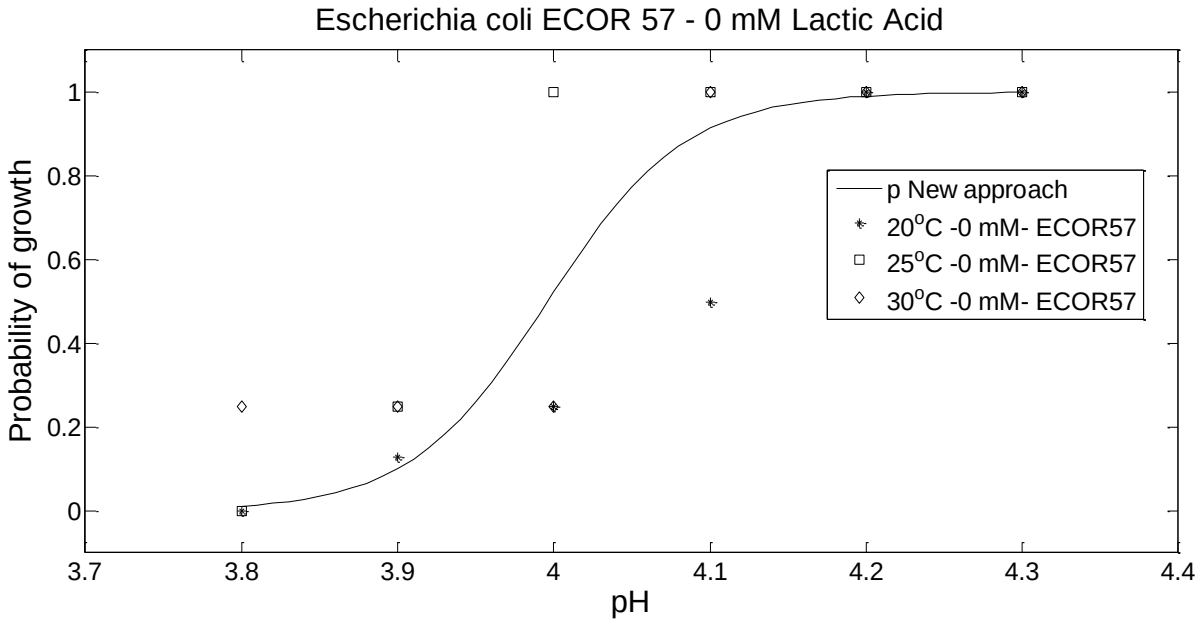
66. *E.coli* ECOR 57	O	H	Host	Locale	Notes
	N	NM	gorila	USA	Group B2 strain from a healthy gorilla in captivity

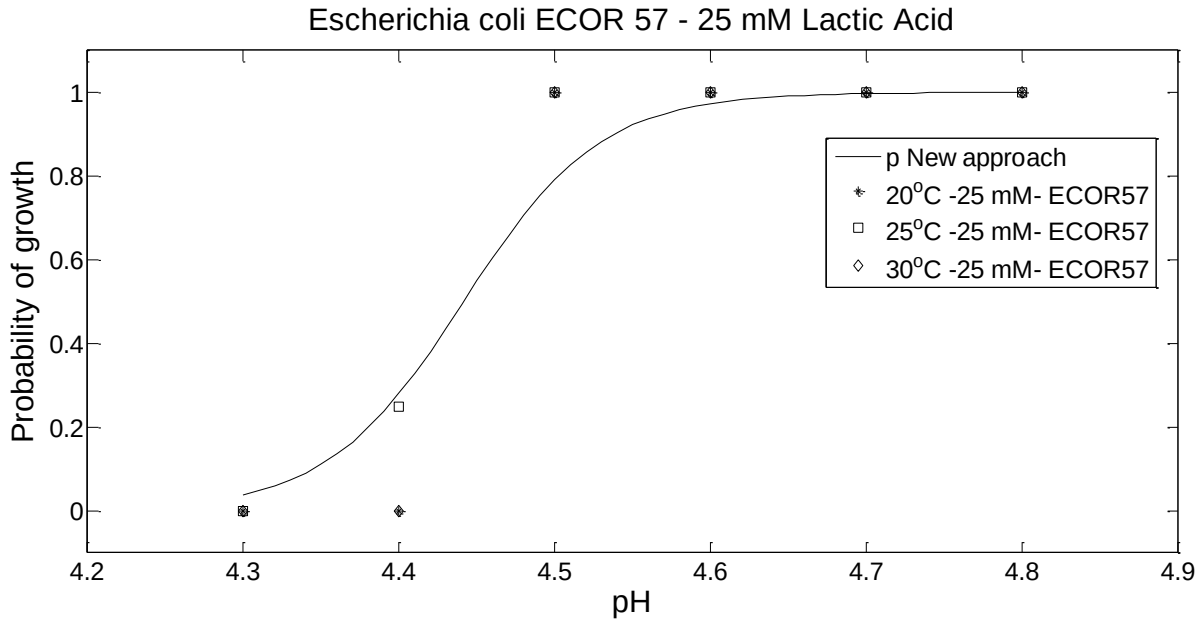
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-90.79	15.46	-5.87	0.00	-126.04	-64.59	0.00	0.00	0.00
pH	22.72	3.87	5.87	0.00	16.16	31.55	7.36E+09	1.04E+07	5.02E+13
LA	-0.40	0.07	-5.48	0.00	-0.57	-0.28	0.67	0.57	0.76

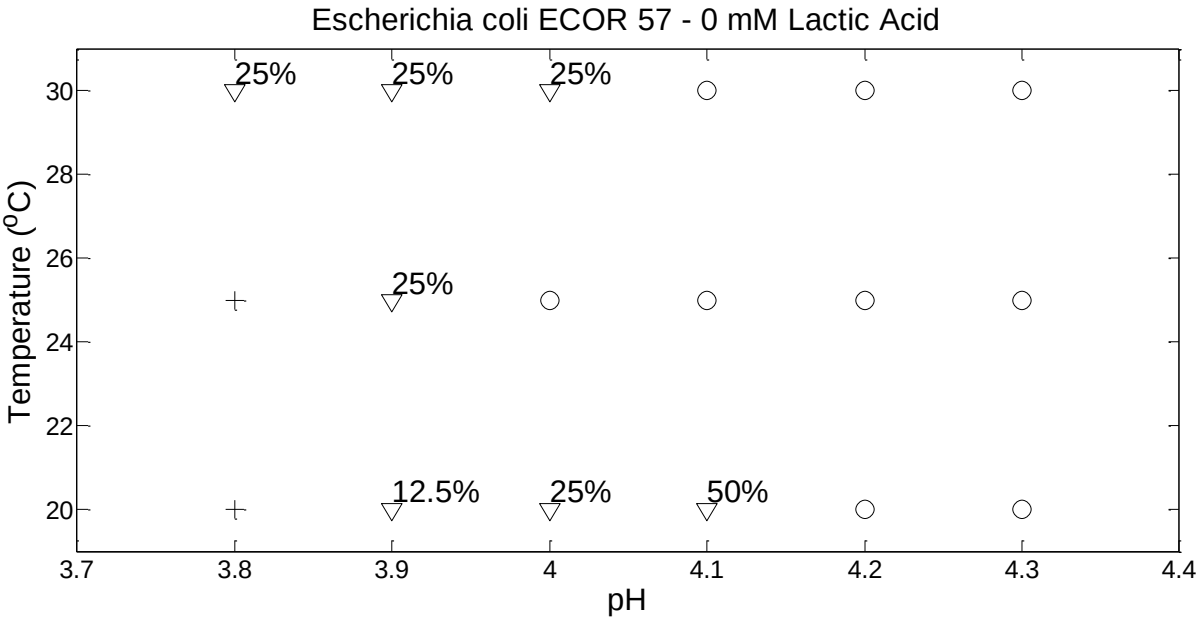
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	209.65	
pH	1	51.47	154	158.18	0.00
LA	1	81.05	153	77.13	0.00

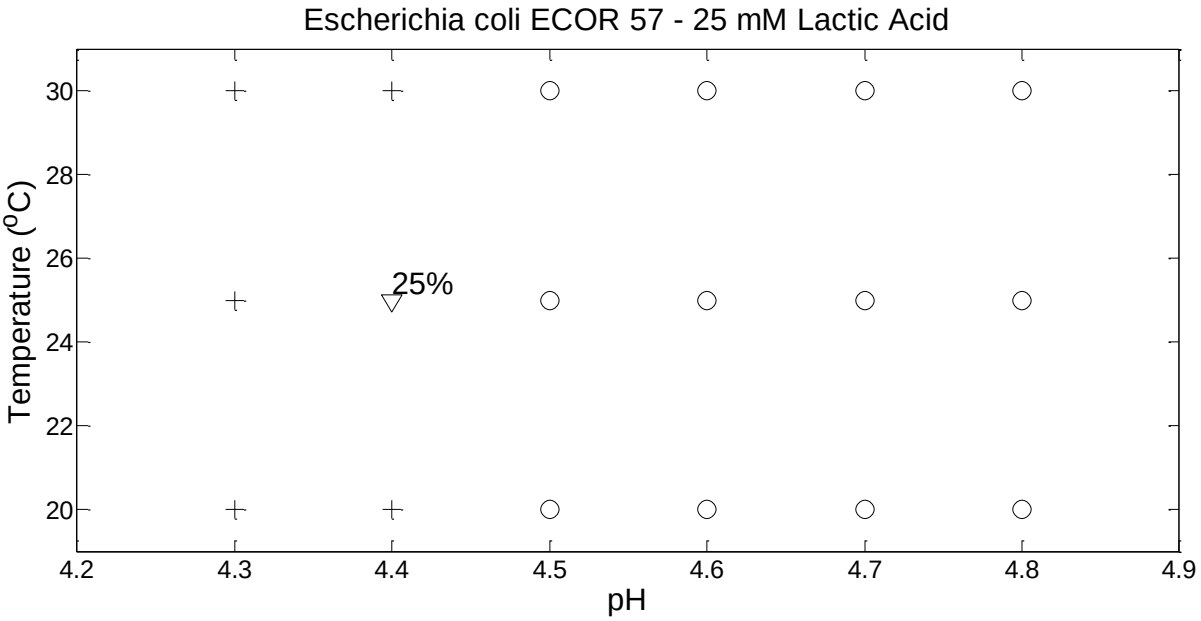
AIC	83.13
Likelihood Ratio	1.67E-29
Log-Likelihood	-38.57




Escherichia coli ECOR 57 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- ECOR57
25°C -0 mM- ECOR57
30°C -0 mM- ECOR57
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ECOR 57 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- ECOR57
25°C -25 mM- ECOR57
30°C -25 mM- ECOR57
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli ECOR 57 - 0 mM Lactic Acid
25%
25%
25%
25%
12.5%
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

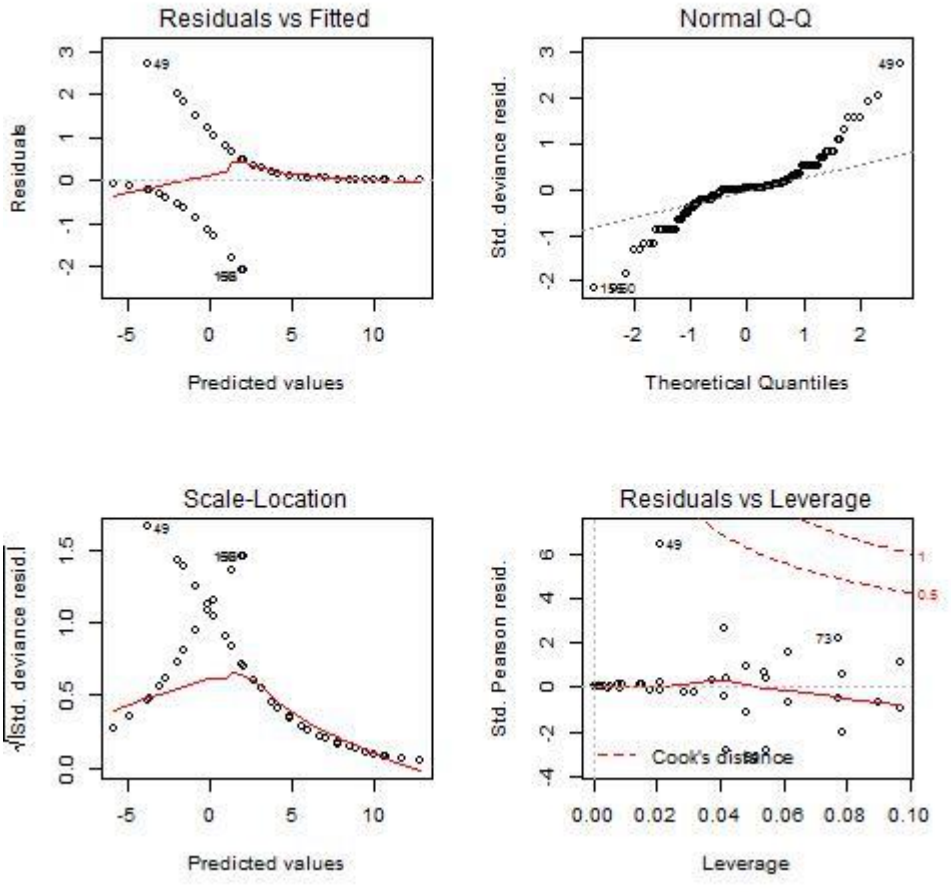

Escherichia coli ECOR 57 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

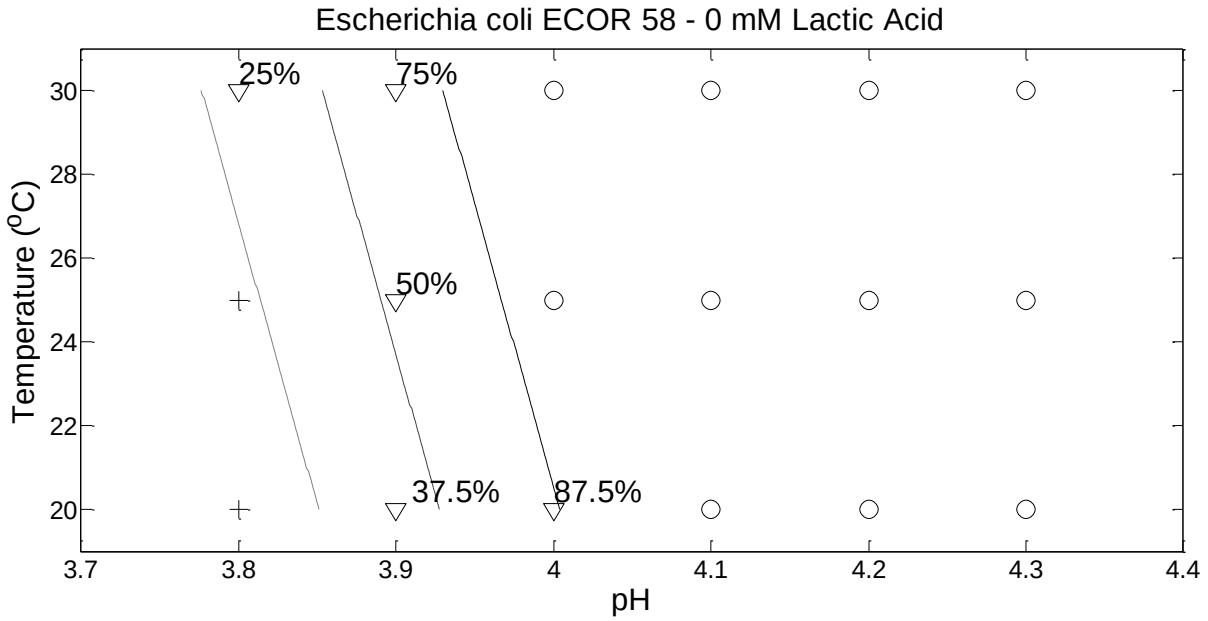
	O	H	Host	Locale	Notes
67. *E.coli* ECOR 58	112	8	lion	USA	Group B1 strain from a healthy lion in captivity

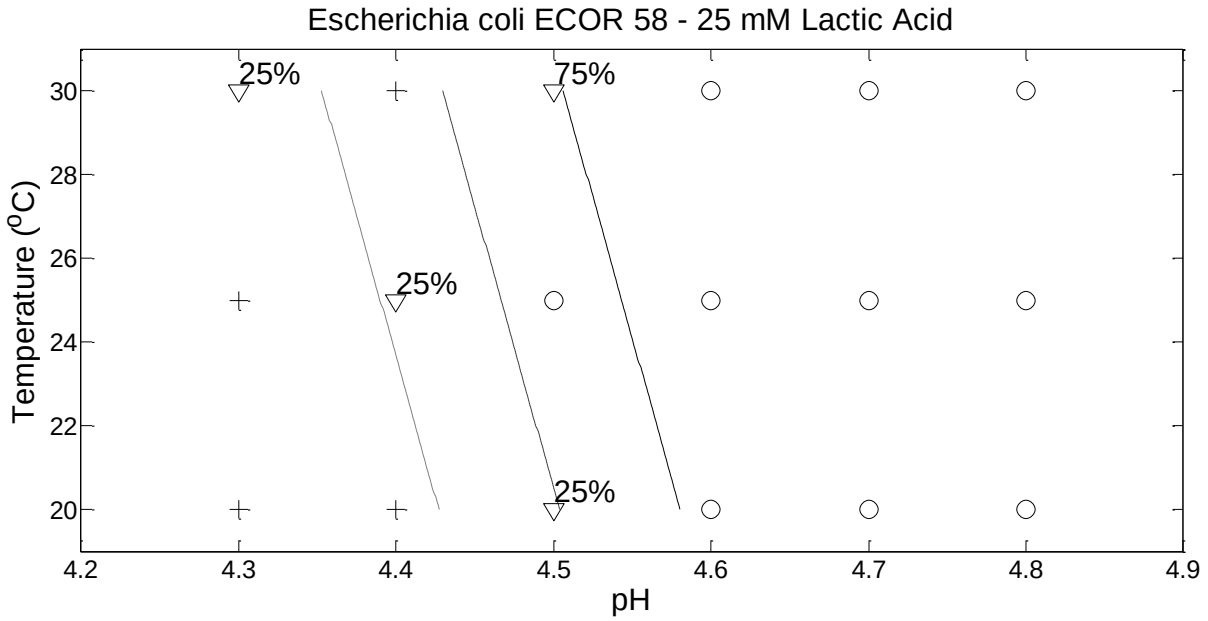
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-116.84	21.84	-5.35	0.00	-167.14	-80.30	0.00	0.00	0.00
pH	28.66	5.35	5.35	0.00	19.71	41.01	2.81E+12	3.62E+08	6.44E+17
LA	-0.66	0.13	-5.25	0.00	-0.95	-0.45	0.52	0.39	0.64
Temp	0.21	0.09	2.46	0.01	0.05	0.40	1.24	1.06	1.49

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	195.70	
pH	1	18.43	154	177.28	0.00
LA	1	107.47	153	69.81	0.00
Temp	1	7.08	152	62.73	0.01

AIC	70.73
Likelihood Ratio	1.23E-28
Log-Likelihood	-31.36




Escherichia coli ECOR 58 - 0 mM Lactic Acid
25%
75%
50%
37.5%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

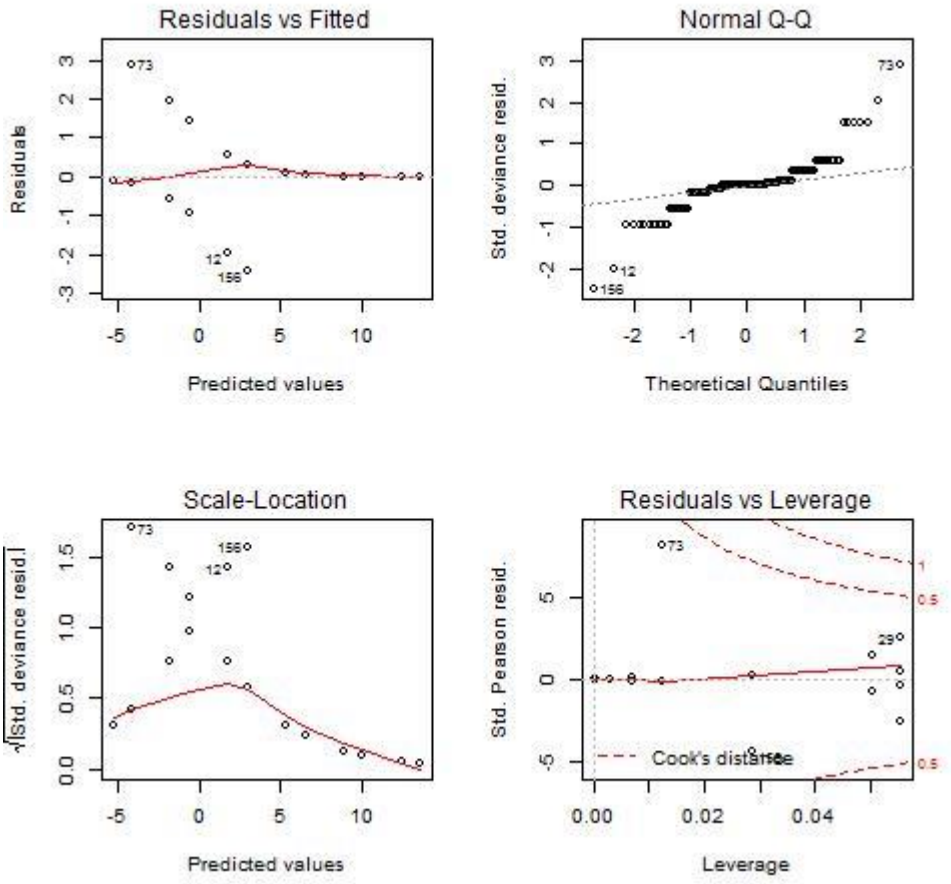

Escherichia coli ECOR 58 - 25 mM Lactic Acid
25%
75%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

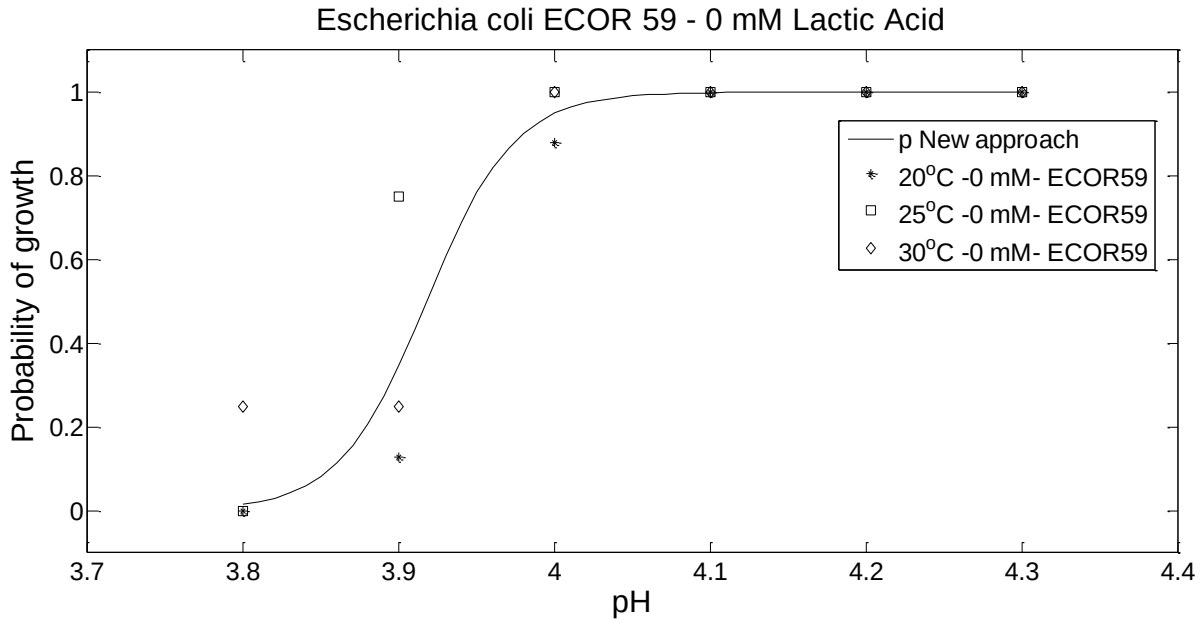
	O	H	Host	Locale	Notes
68. *E.coli* ECOR 59	4	40	human	USA	Group B2 strain from a healthy person

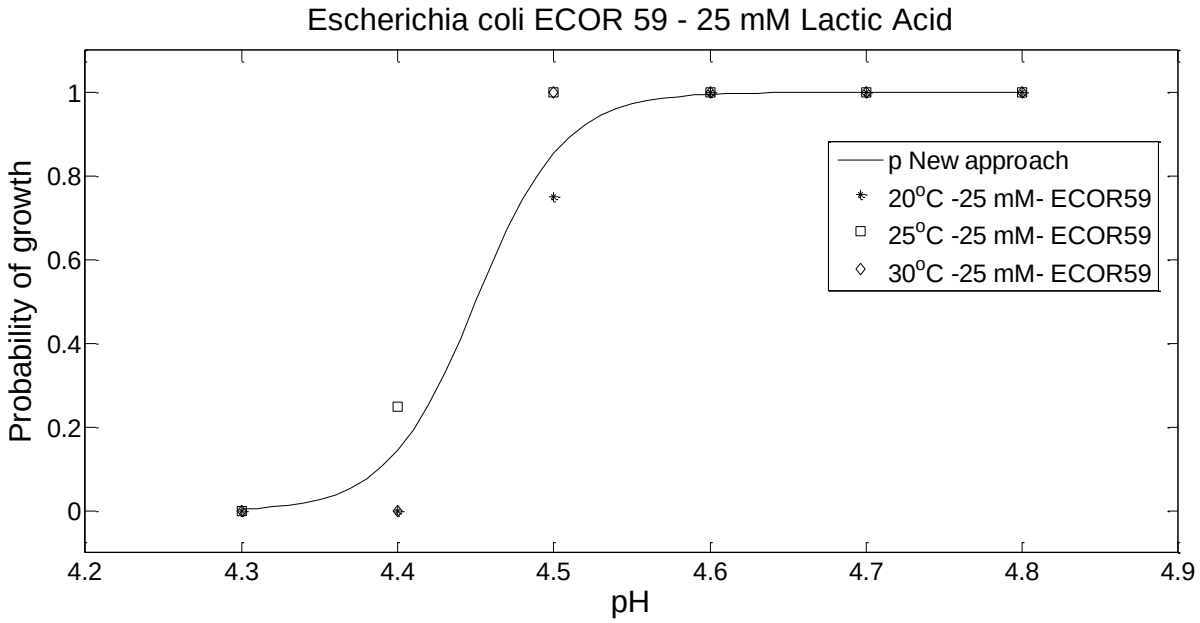
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-139.30	27.50	-5.07	0.00	-204.22	-94.12	0.00	0.00	0.00
pH	35.56	7.03	5.06	0.00	24.02	52.17	2.77E+15	2.71E+10	4.55E+22
LA	-0.76	0.15	-4.92	0.00	-1.12	-0.51	0.47	0.32	0.60

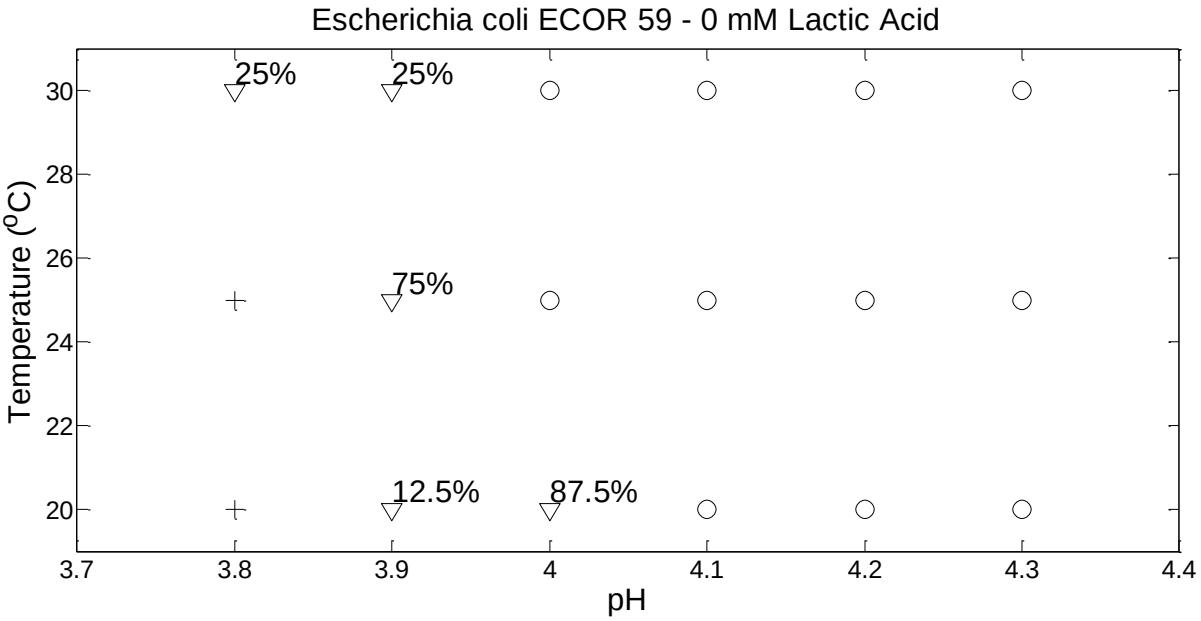
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	197.18	
pH	1	28.52	154	168.66	0.00
LA	1	117.44	153	51.22	0.00

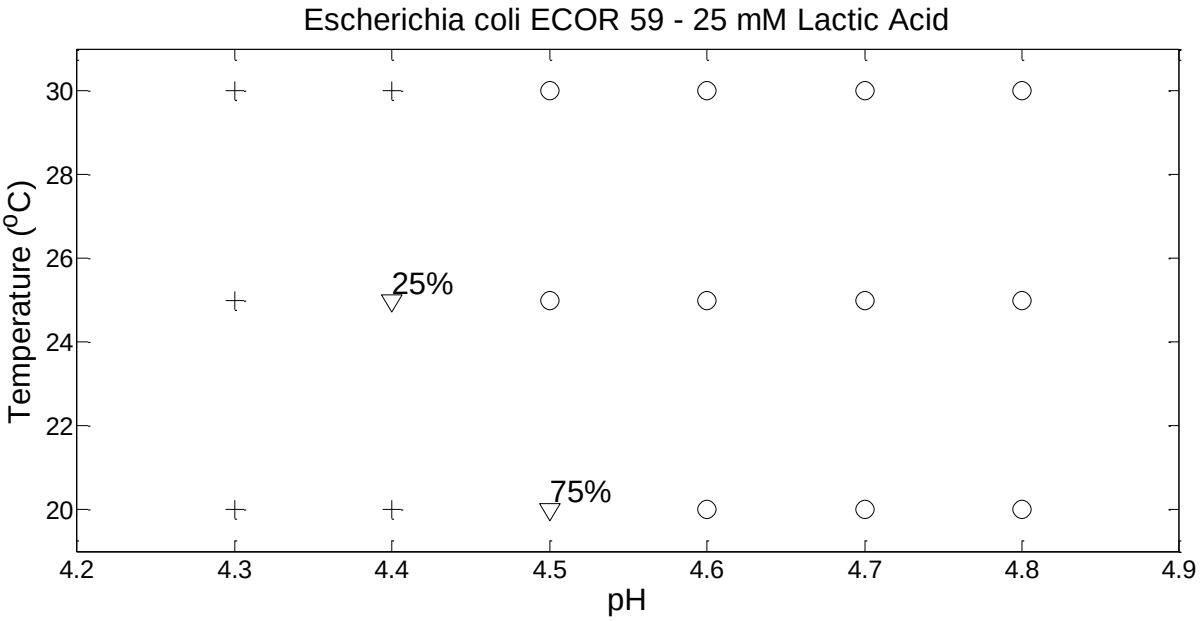
AIC	57.22
Likelihood Ratio	2.02E-32
Log-Likelihood	-25.61




Escherichia coli ECOR 59 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- ECOR59
25°C -0 mM- ECOR59
30°C -0 mM- ECOR59
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ECOR 59 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- ECOR59
25°C -25 mM- ECOR59
30°C -25 mM- ECOR59
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli ECOR 59 - 0 mM Lactic Acid
25%
25%
75%
12.5%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

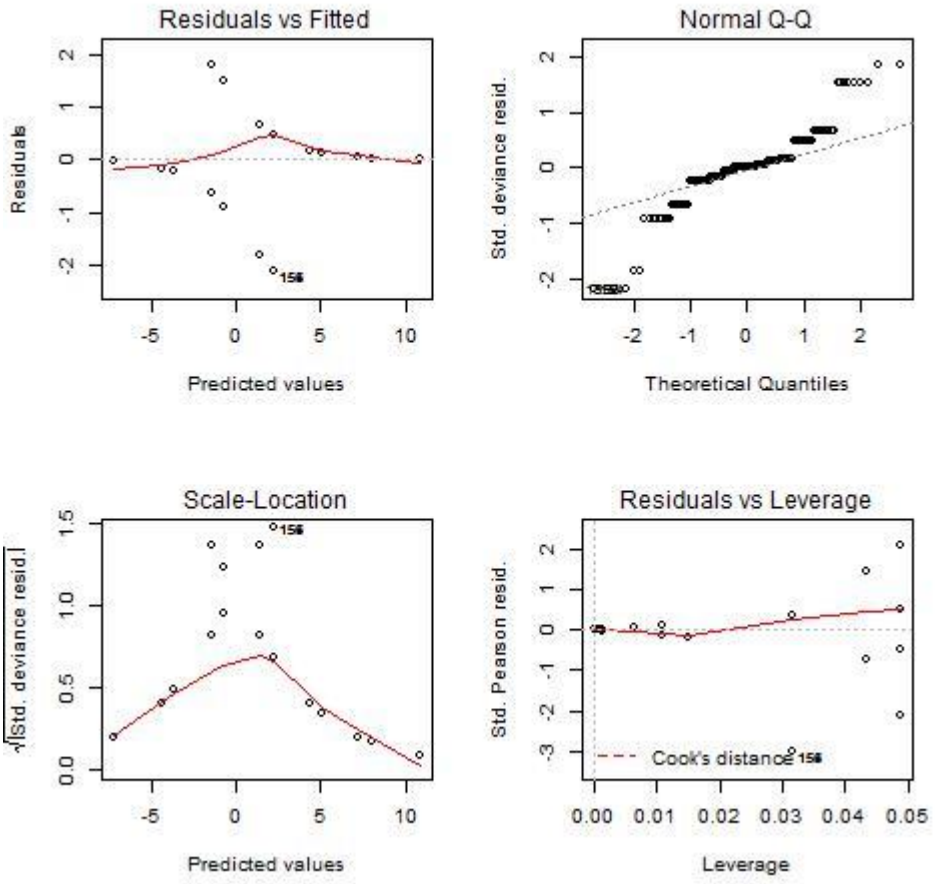

Escherichia coli ECOR 59 - 25 mM Lactic Acid
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

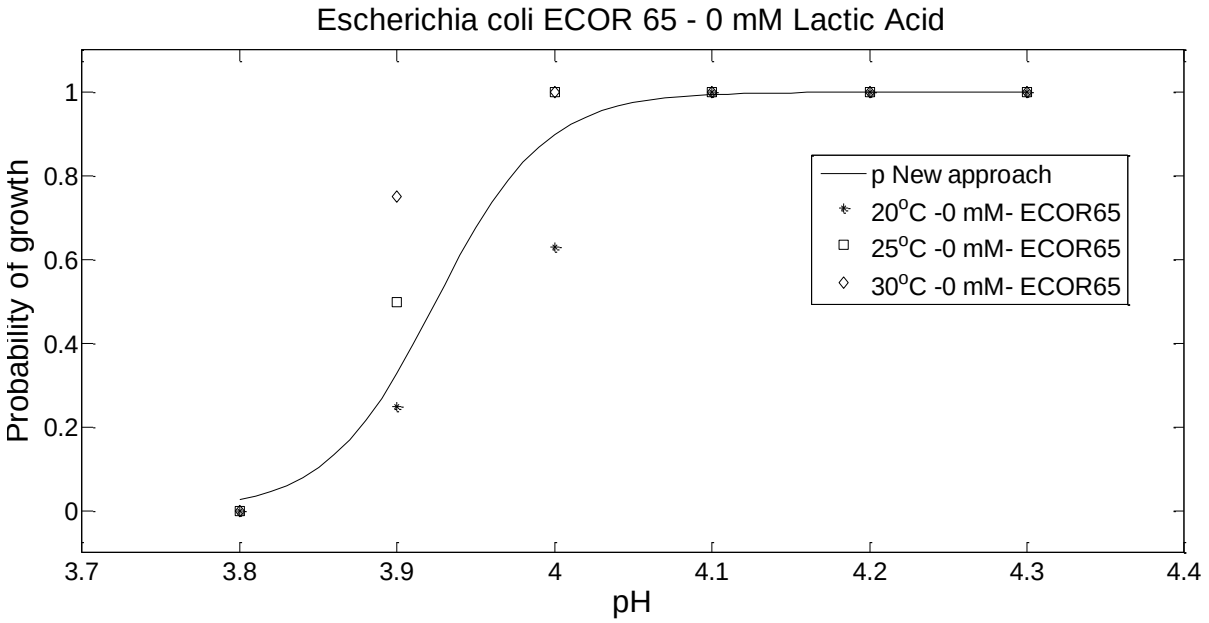
69. *E.coli* ECOR 65	O	H	Host	Locale	Notes
	N	10	celebese ape	USA	Group B2 strain from a healthy celebese ape in captivity

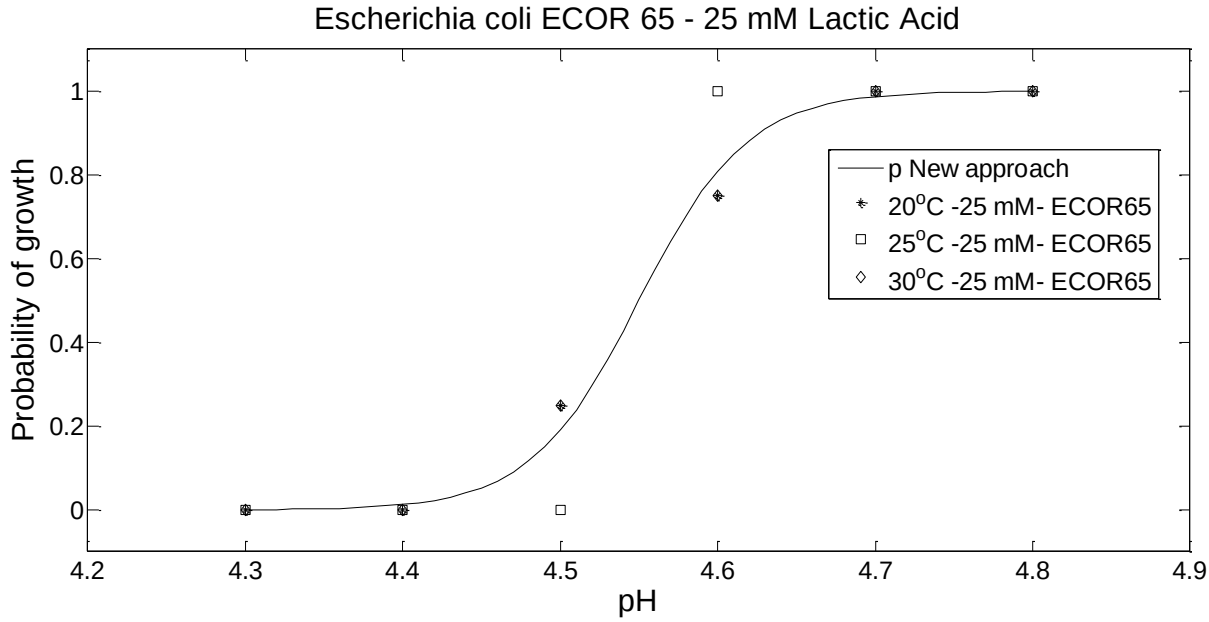
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-113.54	20.50	-5.54	0.00	-160.46	-79.12	0.00	0.00	0.00
pH	28.93	5.23	5.54	0.00	20.16	40.90	3.67E+12	5.71E+08	5.81E+17
LA	-0.72	0.13	-5.41	0.00	-1.03	-0.50	0.48	0.36	0.61

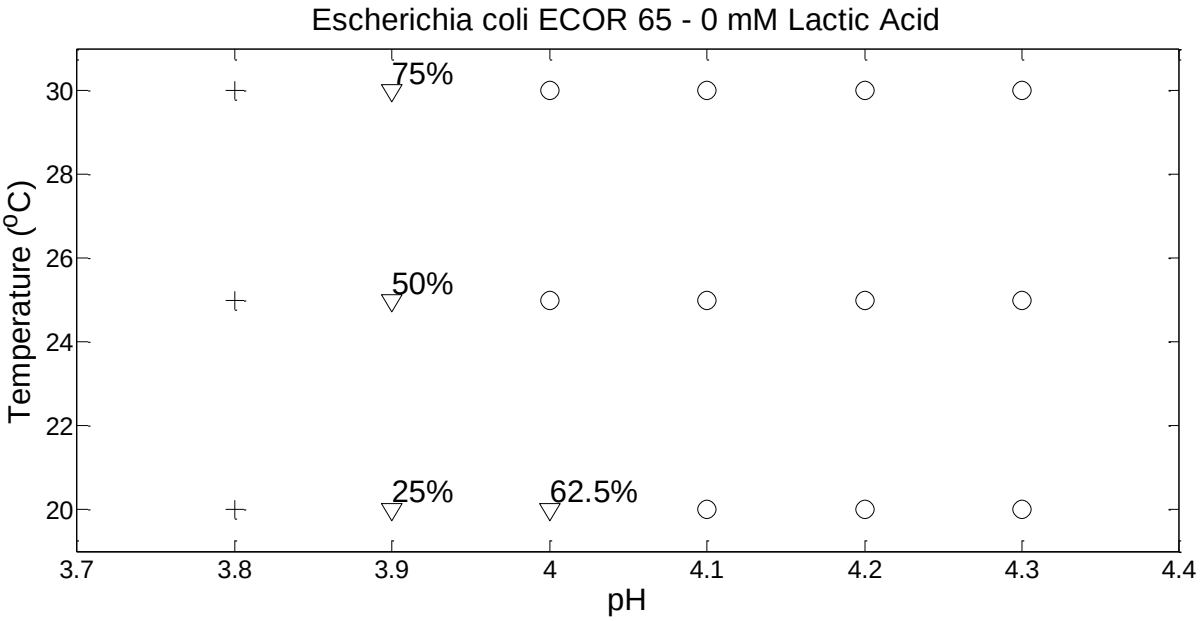
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	211.21	
pH	1	12.83	154	198.38	0.00
LA	1	135.73	153	62.65	0.00

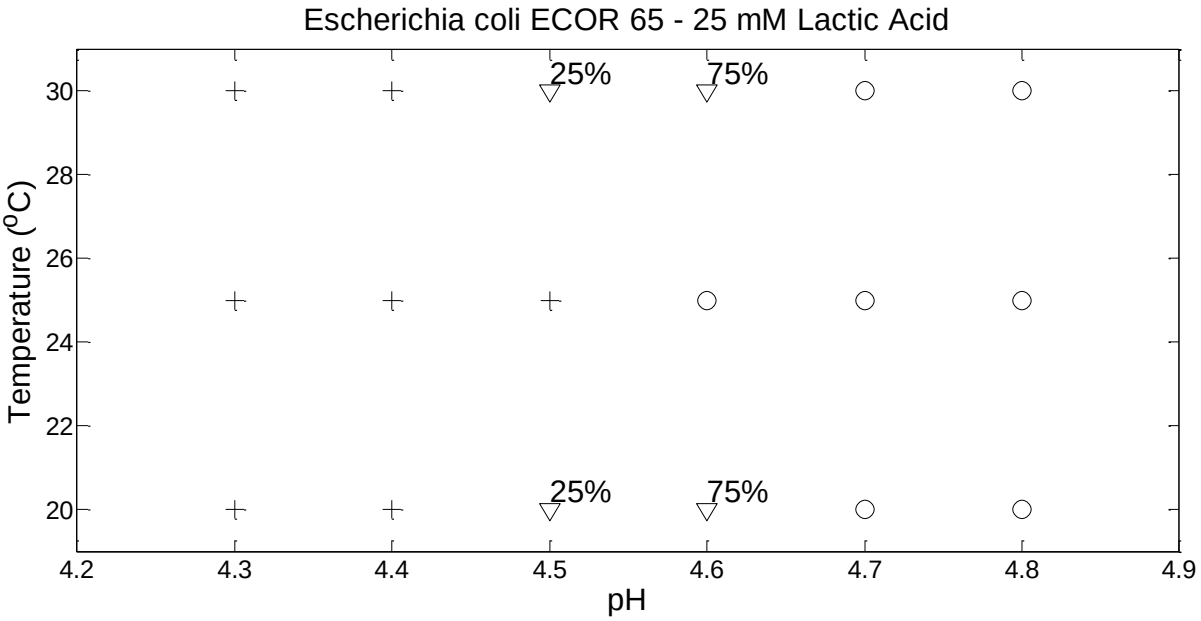
AIC	68.65
Likelihood Ratio	5.49E-33
Log-Likelihood	-31.32




Escherichia coli ECOR 65 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- ECOR65
25°C -0 mM- ECOR65
30°C -0 mM- ECOR65
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli ECOR 65 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- ECOR65
25°C -25 mM- ECOR65
30°C -25 mM- ECOR65
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli ECOR 65 - 0 mM Lactic Acid
75%
50%
25%
62.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

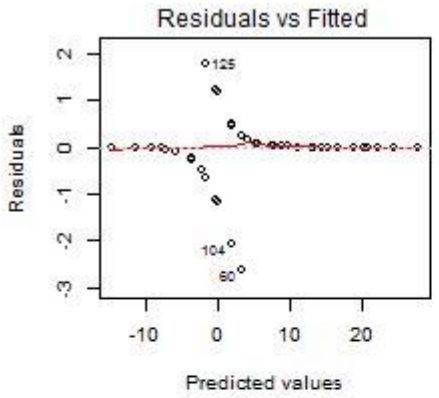

Escherichia coli ECOR 65 - 25 mM Lactic Acid
25%
75%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

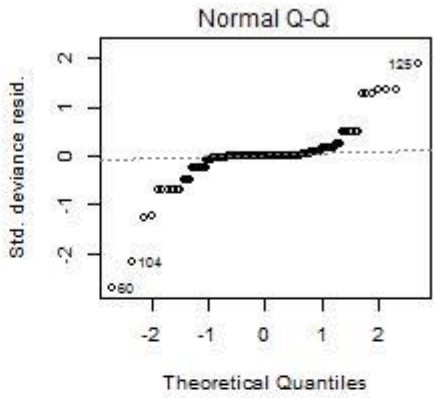
70. *E.coli* ECOR 70	O	H	Host	Locale	Notes
	78	NM	gorila	USA	Group B1 strain from a healthy gorilla in captivity

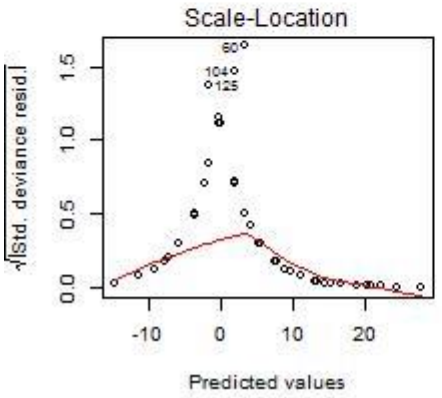
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-234.11	58.79	-3.98	0.00	-383.98	-143.41	0.00	0.00	0.00
pH	56.12	14.13	3.97	0.00	34.36	92.31	2.37E+24	8.33E+14	1.23E+40
LA	-1.43	0.36	-3.92	0.00	-2.37	-0.87	0.24	0.09	0.42
Temp	0.69	0.20	3.45	0.00	0.36	1.17	2.00	1.44	3.22

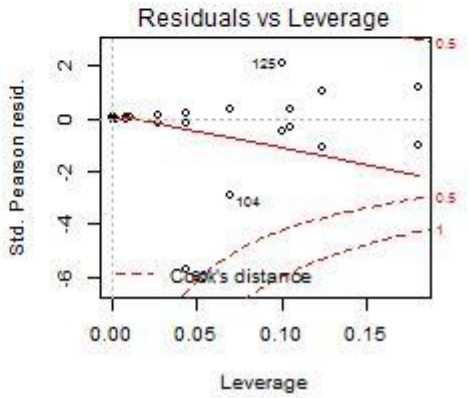
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	197.18	
pH	1	10.23	154	186.95	0.00
LA	1	126.19	153	60.76	0.00
Temp	1	28.31	152	32.44	0.00

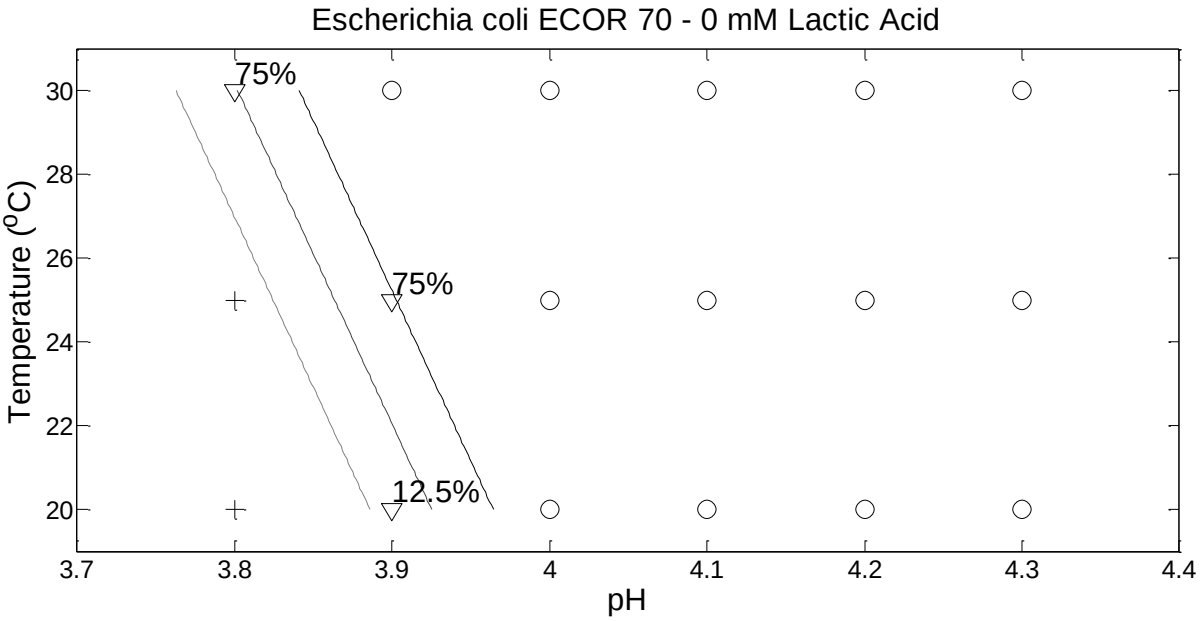
AIC	40.44
Likelihood Ratio	1.74E-35
Log-Likelihood	-16.22

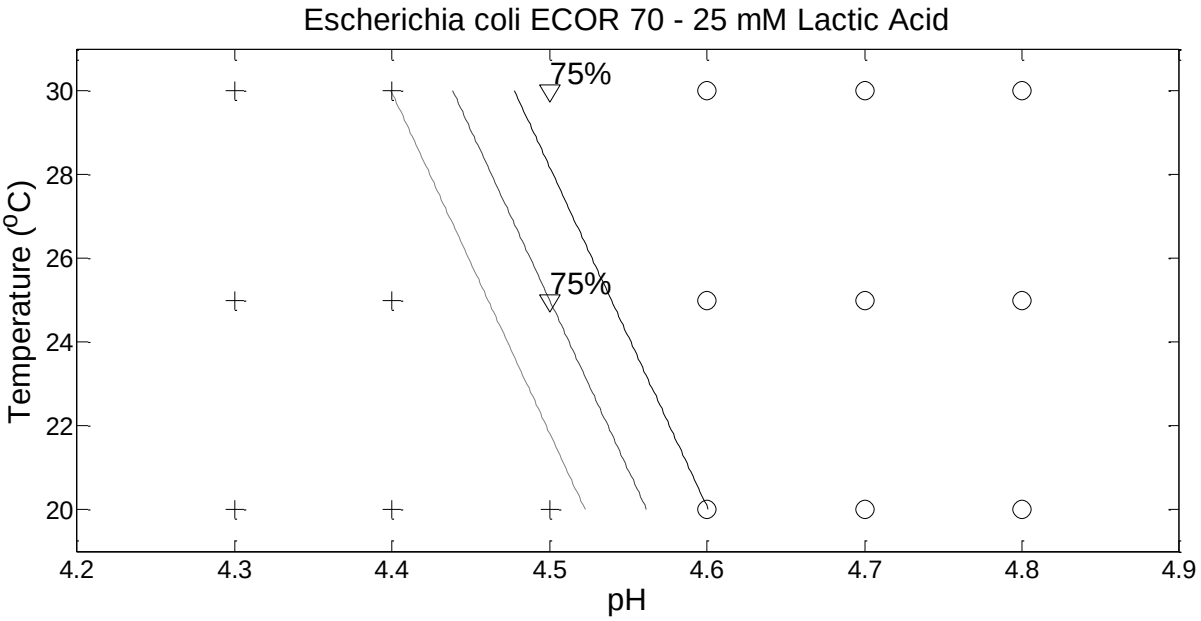









Escherichia coli ECOR 70 - 0 mM Lactic Acid
75%
75%
12.5%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

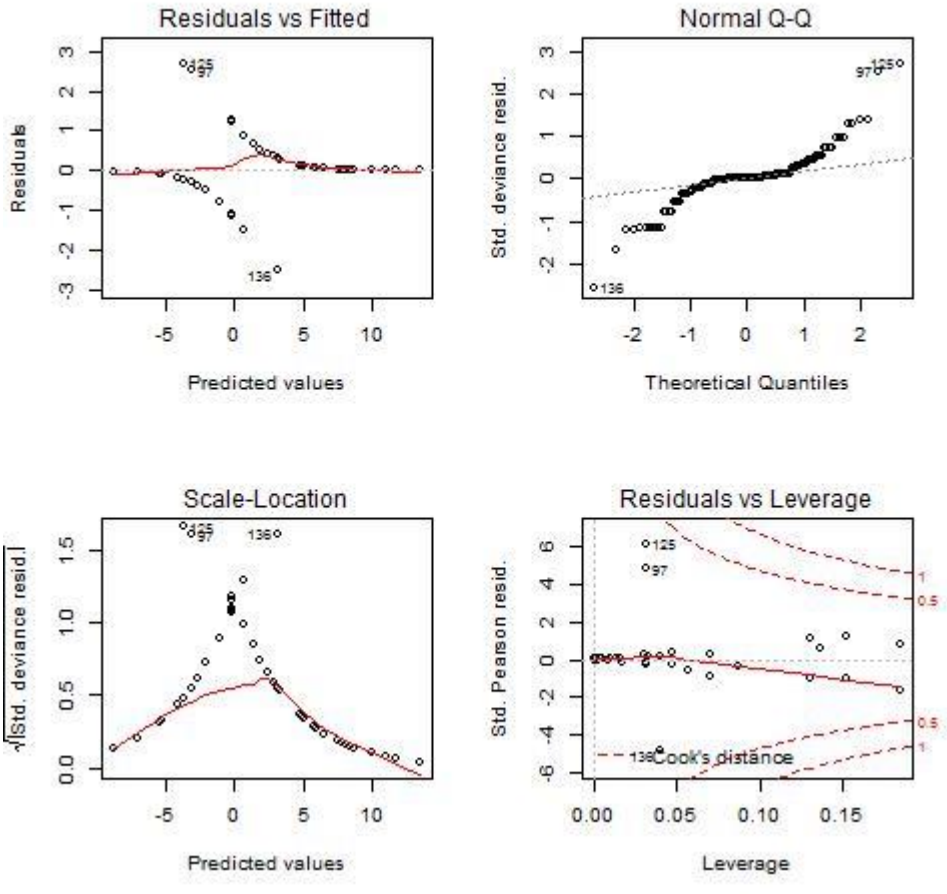

Escherichia coli ECOR 70 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

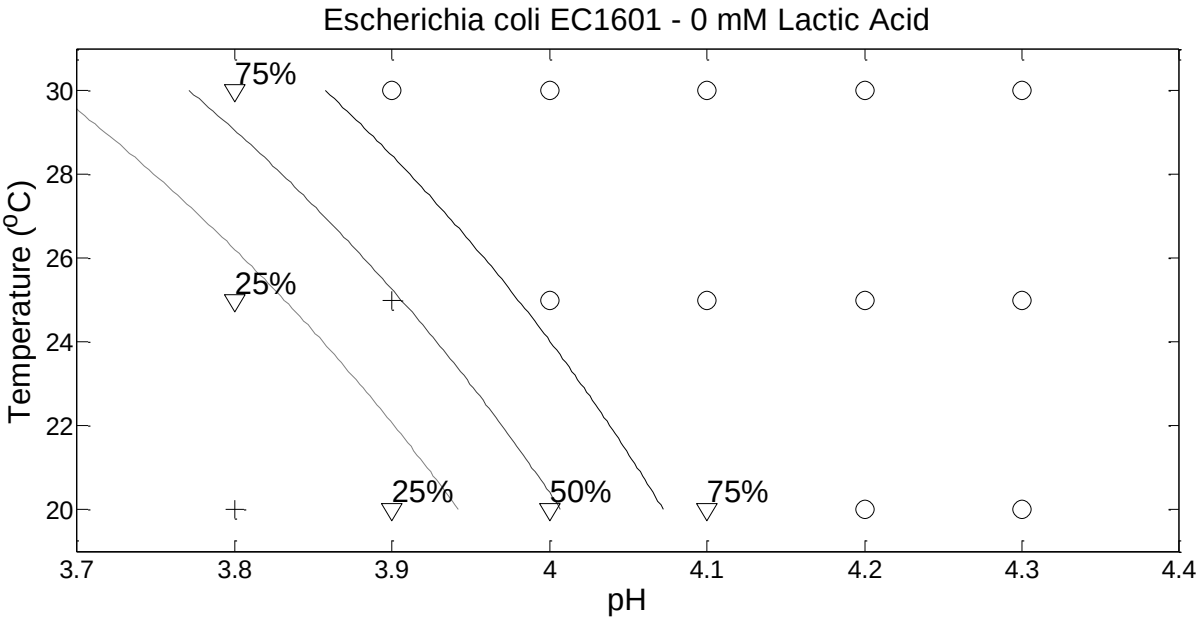
71. *E. coli* EC1601 CNF 1, 678Ci (Prof. J. Mainil (Ulg, Liège, Belgium))

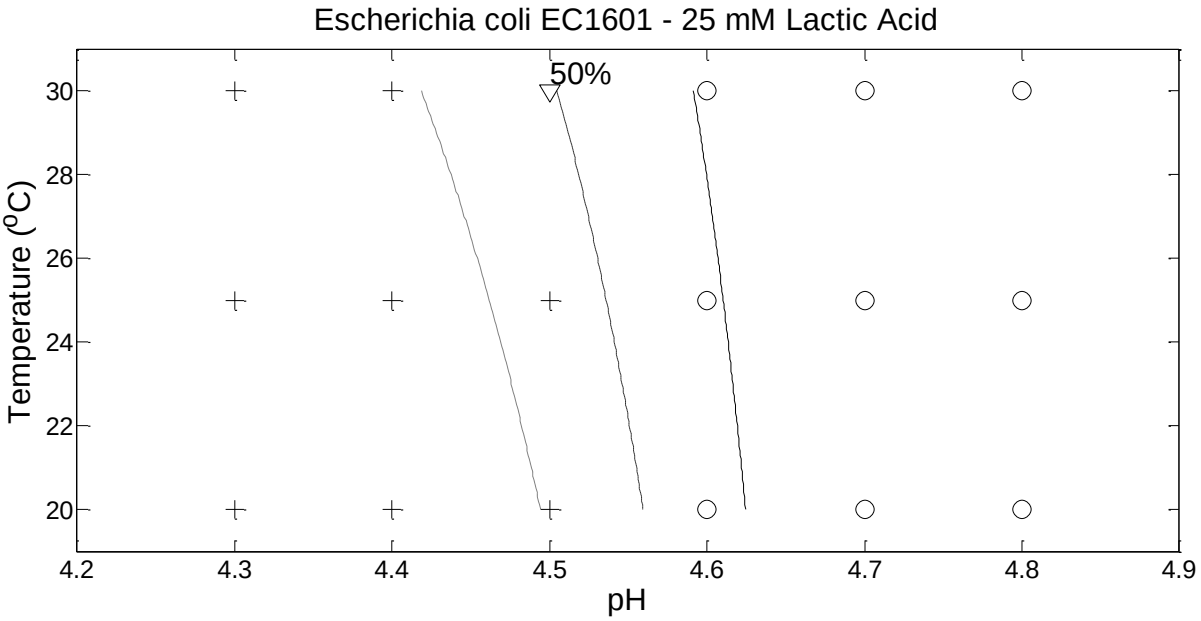
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-214.15	50.59	-4.23	0.00	-330.41	-128.54	0.00	0.00	0.00
pH	50.45	11.93	4.23	0.00	30.28	77.96	8.14E+21	1.41E+13	7.17E+33
LA	-0.75	0.16	-4.71	0.00	-1.13	-0.49	0.47	0.32	0.61
Temp	3.94	1.37	2.88	0.00	1.48	6.95	51.67	4.40	1042.95
pH:Temp	-0.83	0.31	-2.66	0.01	-1.52	-0.27	0.43	0.22	0.77

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	188.37	
pH	1	6.46	142	181.91	0.01
LA	1	105.67	141	76.24	0.00
Temp	1	17.36	140	58.88	0.00
pH:Temp	1	8.75	139	50.13	0.00

AIC	60.13
Likelihood Ratio	6.72E-29
Log-Likelihood	-25.06




Escherichia coli EC1601 - 0 mM Lactic Acid
75%
25%
25%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

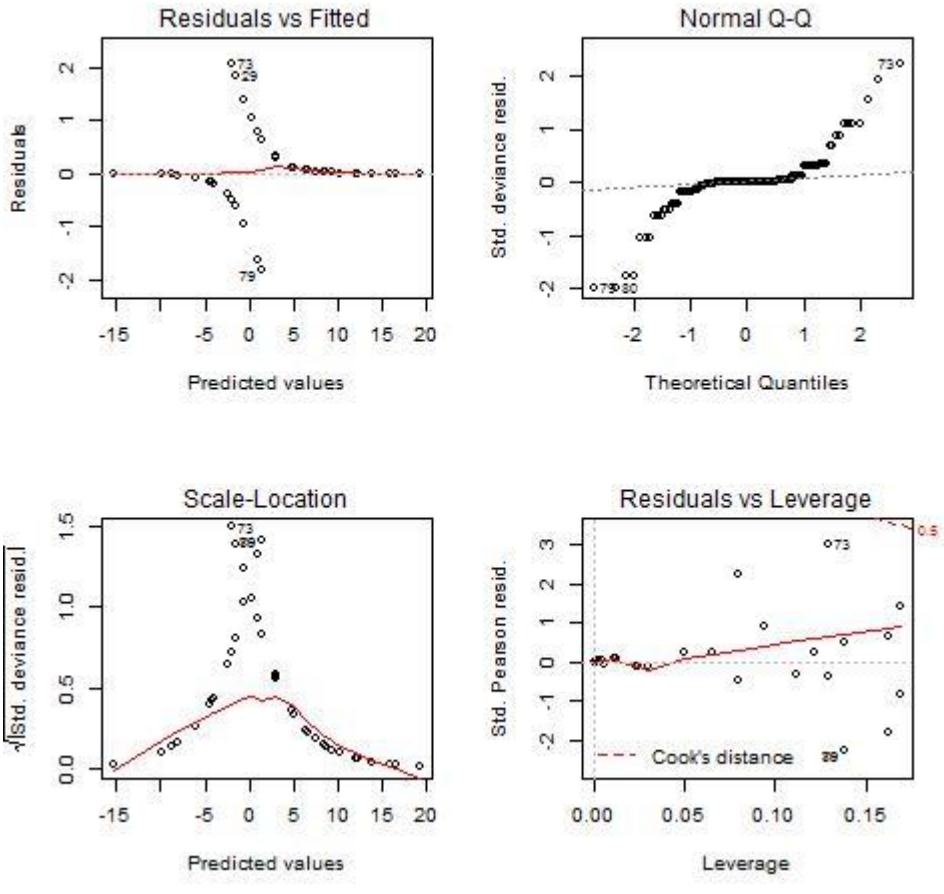

Escherichia coli EC1601 - 25 mM Lactic Acid
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

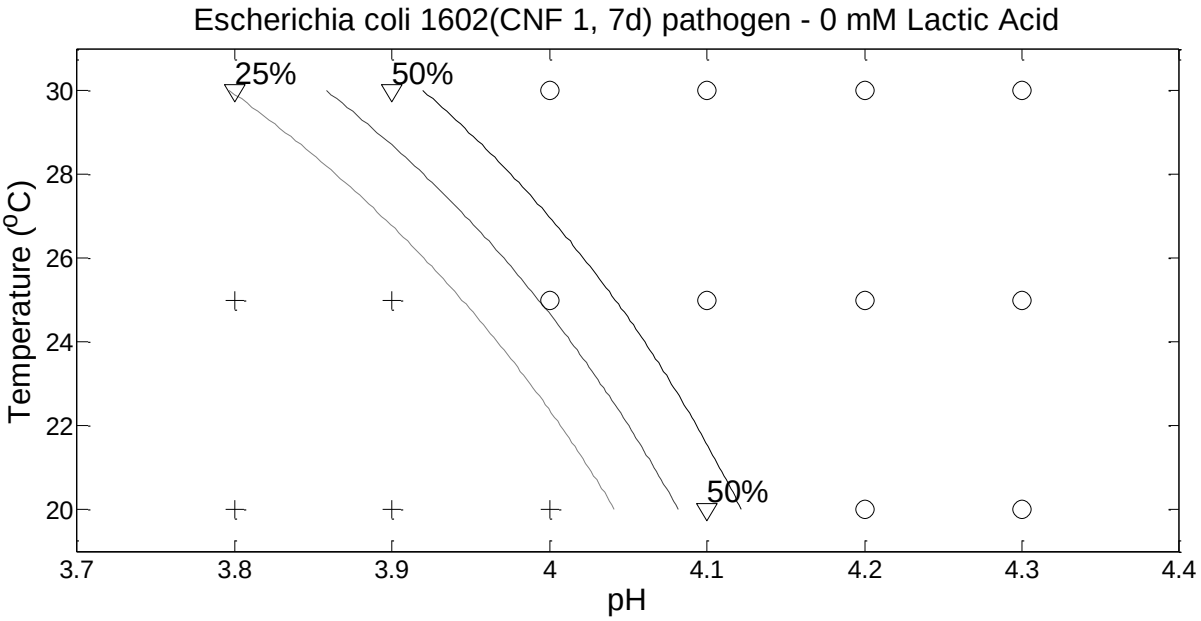
72. *E. coli* EC1602 CNF 1, 7d (Prof. J. Mainil (Ulg, Liège, Belgium))

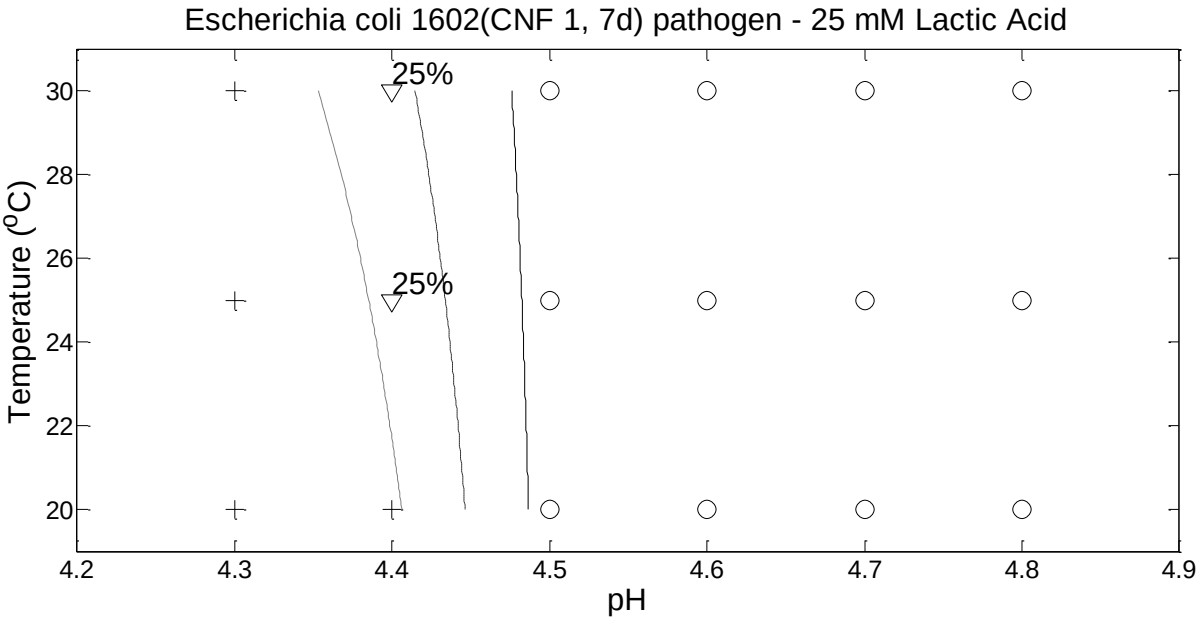
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-392.19	112.83	-3.48	0.00	-689.83	-217.79	0.00	0.00	0.00
pH	92.17	26.56	3.47	0.00	51.14	162.37	1.07E+40	1.62E+22	3.27E+70
LA	-0.80	0.19	-4.21	0.00	-1.27	-0.50	0.45	0.28	0.61
Temp	8.47	3.03	2.79	0.01	3.63	16.32	4.77E+03	3.77E+01	1.22E+07
pH:Temp	-1.88	0.70	-2.69	0.01	-3.68	-0.76	0.15	0.03	0.47

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	184.67	
pH	1	38.11	142	146.56	0.00
LA	1	80.40	141	66.15	0.00
Temp	1	17.01	140	49.15	0.00
pH:Temp	1	13.83	139	35.32	0.00

AIC	45.32
Likelihood Ratio	2.8E-31
Log-Likelihood	-17.66




Escherichia coli 1602(CNF 1, 7d) pathogen - 0 mM Lactic Acid
25%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

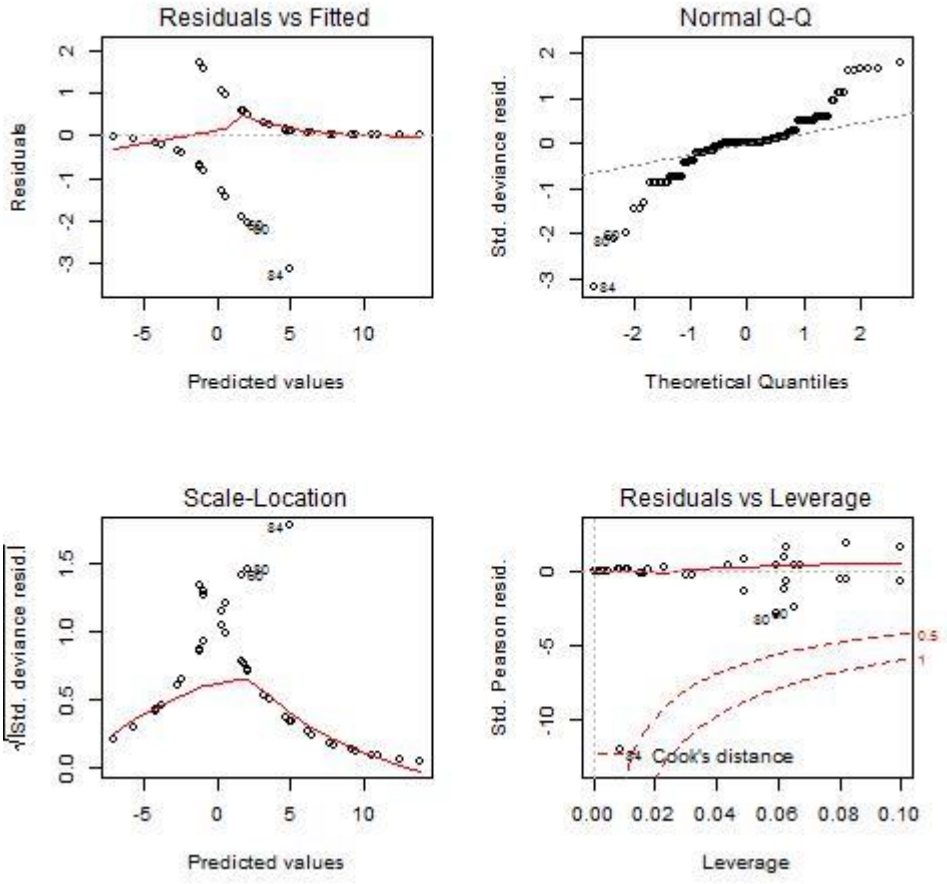

Escherichia coli 1602(CNF 1, 7d) pathogen - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

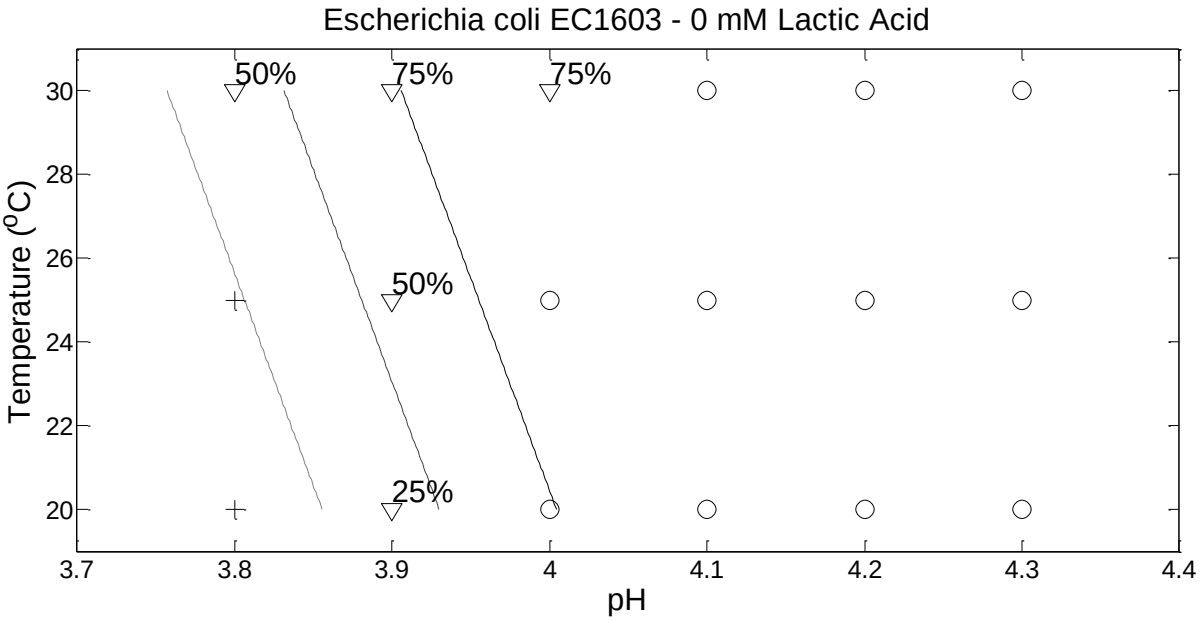
73. *E. coli* EC1603 CNF 1, 48KH88 (Prof. J. Mainil (Ulg, Liège, Belgium))

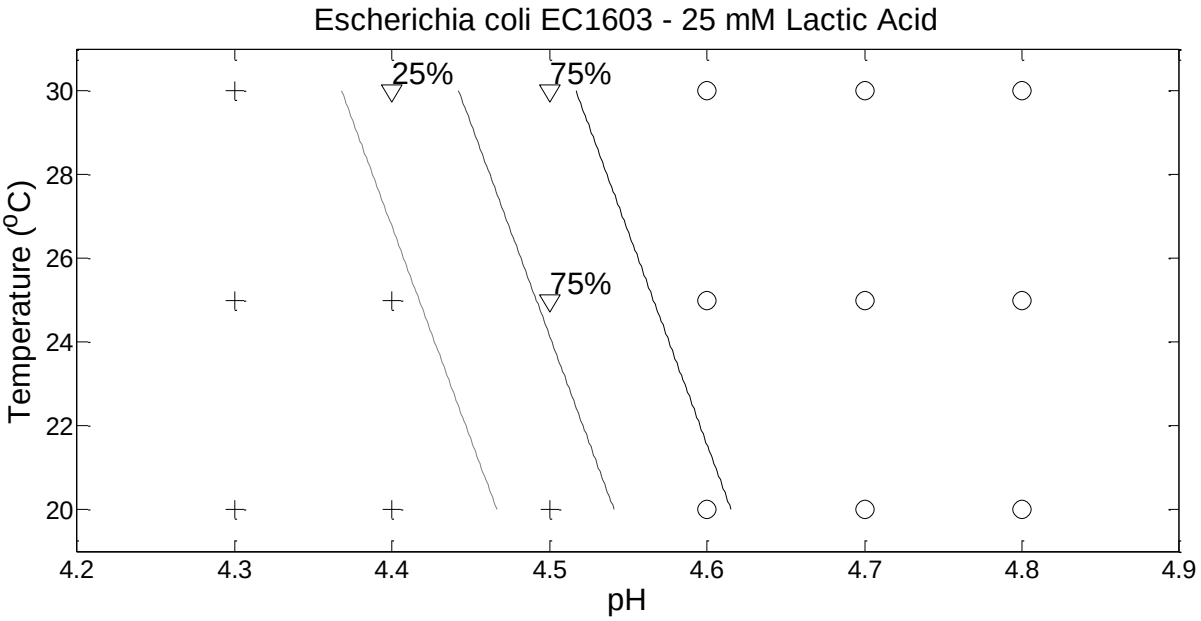
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-121.88	23.00	-5.30	0.00	-174.72	-83.43	0.00	0.00	0.00
pH	29.53	5.57	5.30	0.00	20.21	42.34	6.69E+12	6.00E+08	2.45E+18
LA	-0.72	0.14	-5.22	0.00	-1.04	-0.49	0.49	0.35	0.61
Temp	0.29	0.10	3.05	0.00	0.12	0.50	1.34	1.13	1.65

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	198.59	
pH	1	13.13	154	185.46	0.00
LA	1	112.70	153	72.76	0.00
Temp	1	12.24	152	60.51	0.00

AIC	68.51
Likelihood Ratio	9.82E-30
Log-Likelihood	-30.26




Escherichia coli EC1603 - 0 mM Lactic Acid
50%
75%
75%
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

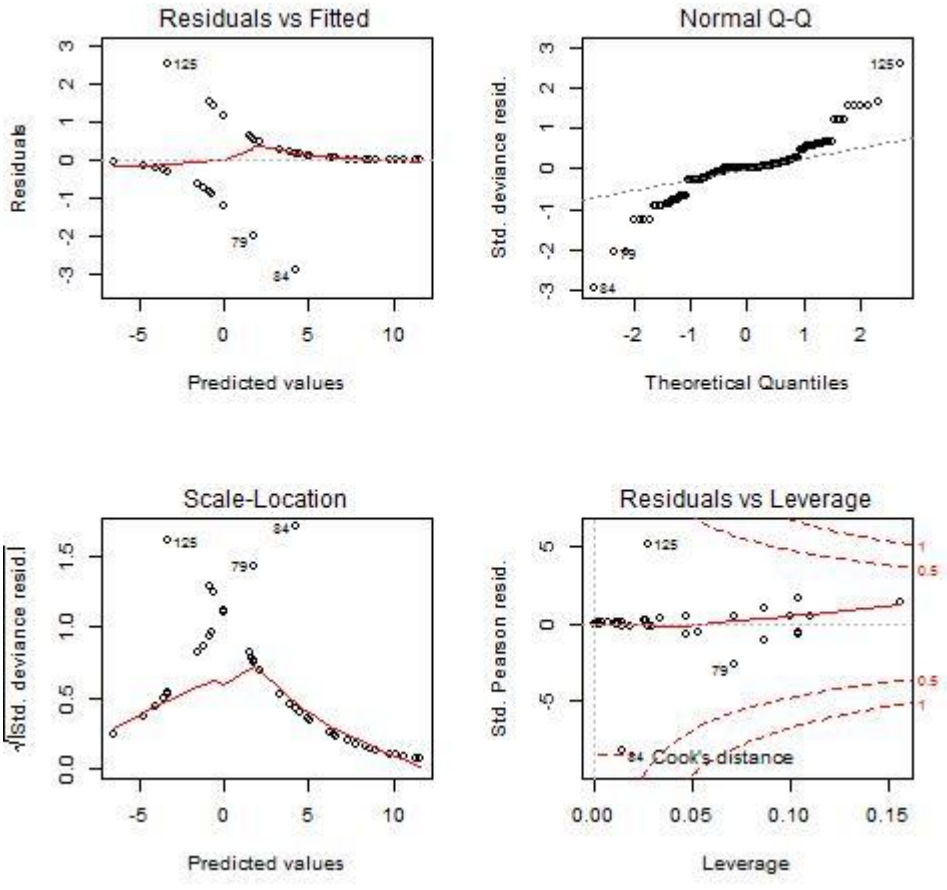

Escherichia coli EC1603 - 25 mM Lactic Acid
25%
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

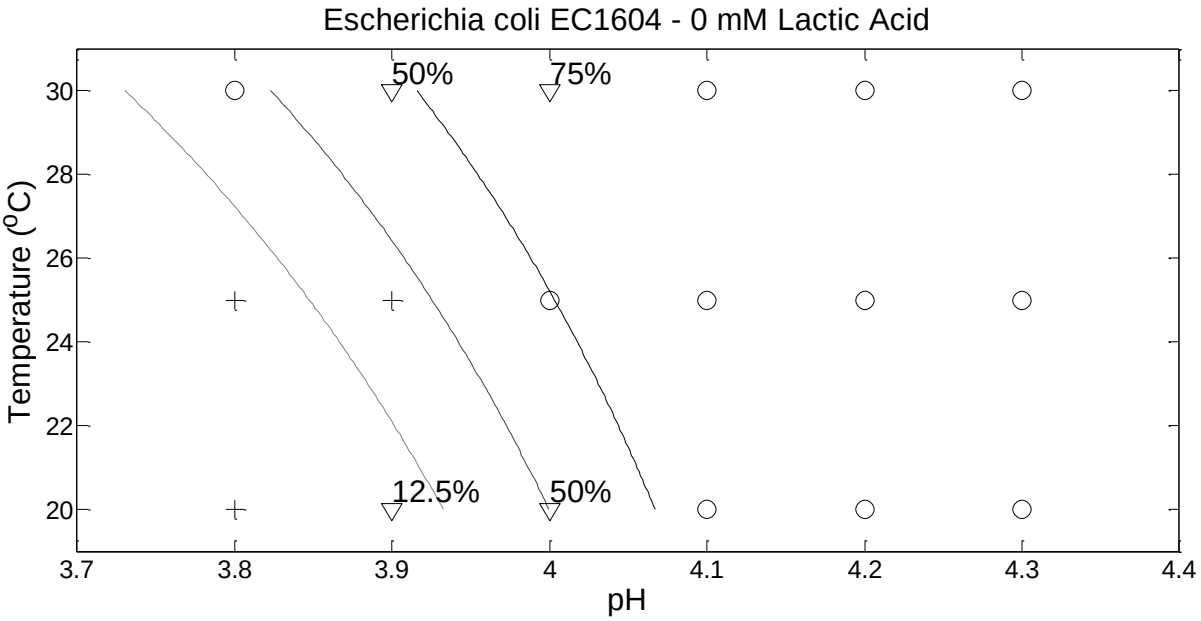
74. *E. coli* EC1604 CNF 1, 6KH90 (Prof. J. Mainil (Ulg, Liège, Belgium))

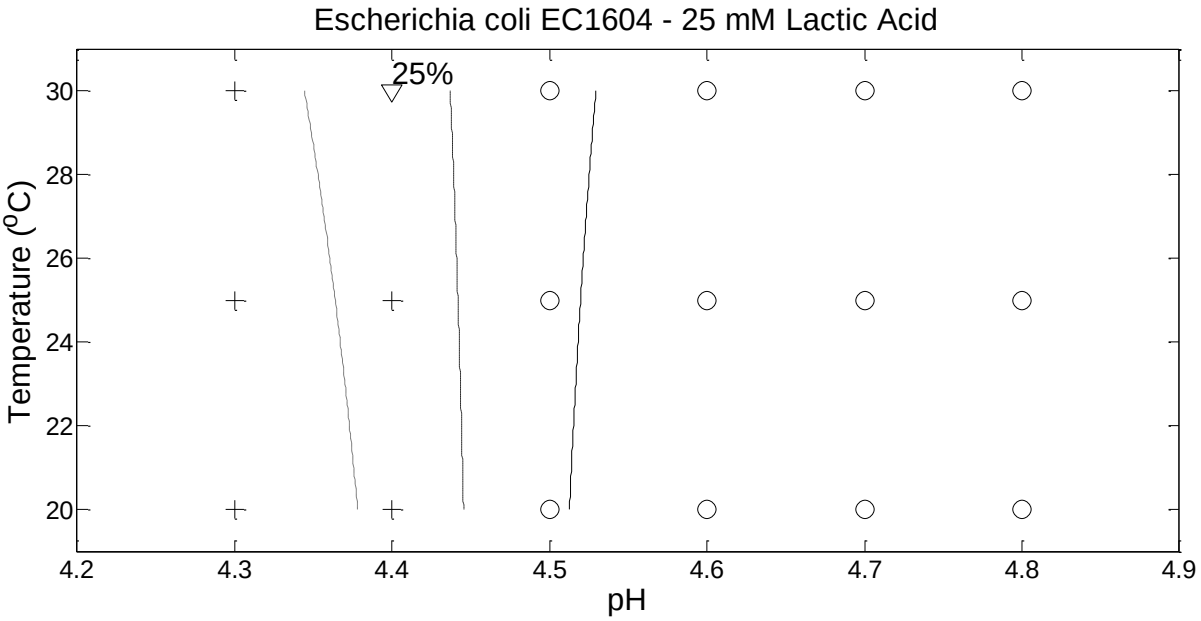
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-210.72	49.66	-4.24	0.00	-325.12	-126.28	0.00	0.00	0.00
pH	50.59	11.97	4.23	0.00	30.26	78.20	9.33E+21	1.38E+13	9.13E+33
LA	-0.58	0.12	-5.04	0.00	-0.85	-0.39	0.56	0.43	0.68
Temp	4.00	1.42	2.83	0.00	1.44	7.10	54.66	4.22	1215.44
pH:Temp	-0.90	0.34	-2.67	0.01	-1.63	-0.29	0.41	0.20	0.75

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	199.95	
pH	1	32.16	154	167.79	0.00
LA	1	86.16	153	81.63	0.00
Temp	1	11.47	152	70.16	0.00
pH:Temp	1	8.72	151	61.44	0.00

AIC	71.44
Likelihood Ratio	5.87E-29
Log-Likelihood	-30.72




Escherichia coli EC1604 - 0 mM Lactic Acid
50%
75%
12.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

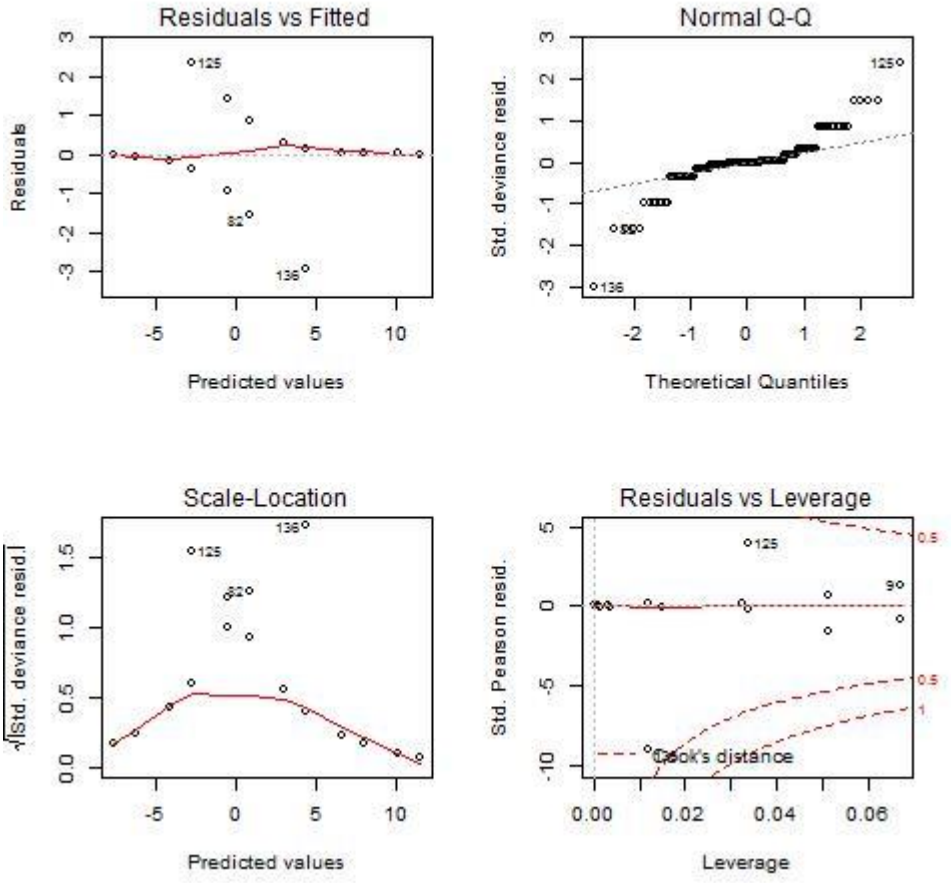

Escherichia coli EC1604 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

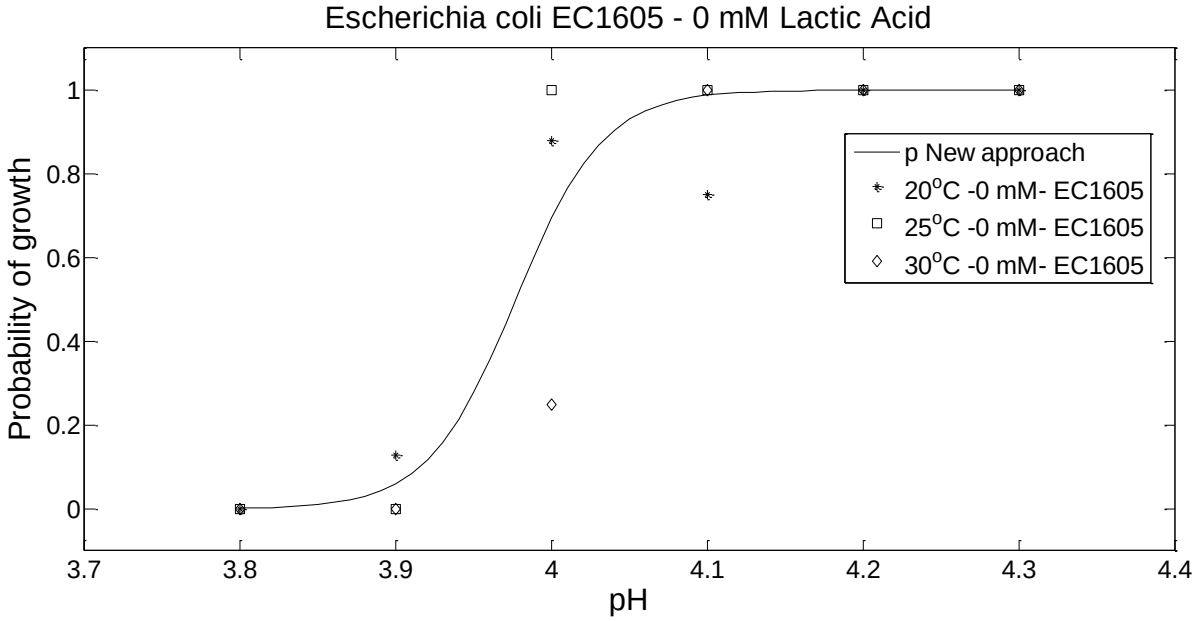
75. *E. coli* EC1605 CNF 1, 13b (Prof. J. Mainil (Ulg, Liège, Belgium))

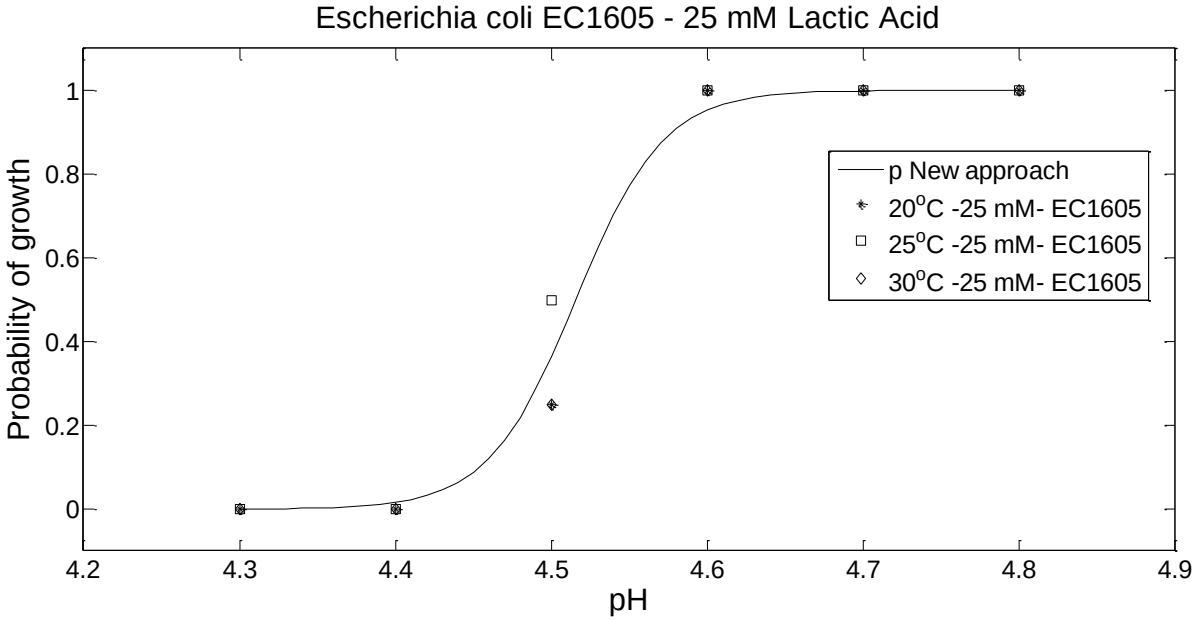
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-141.55	29.41	-4.81	0.00	-215.15	-94.79	0.00	0.00	0.00
pH	35.60	7.39	4.82	0.00	23.84	54.04	2.88E+15	2.26E+10	2.96E+23
LA	-0.77	0.16	-4.83	0.00	-1.15	-0.51	0.46	0.32	0.60

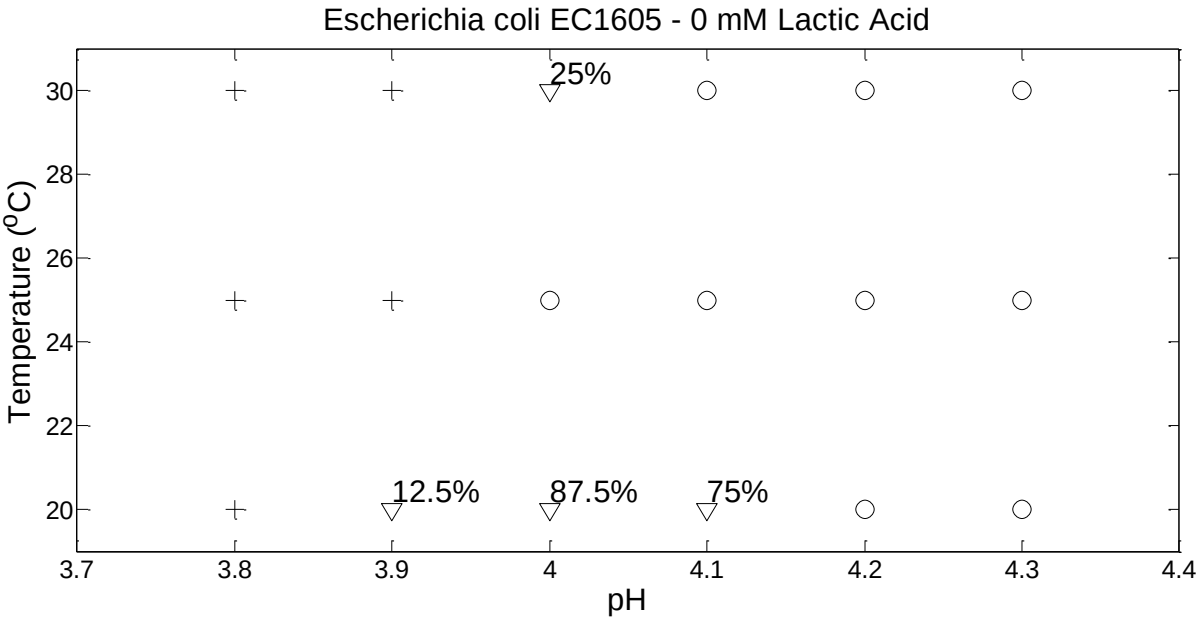
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	213.69	
pH	1	32.08	154	181.61	0.00
LA	1	129.84	153	51.77	0.00

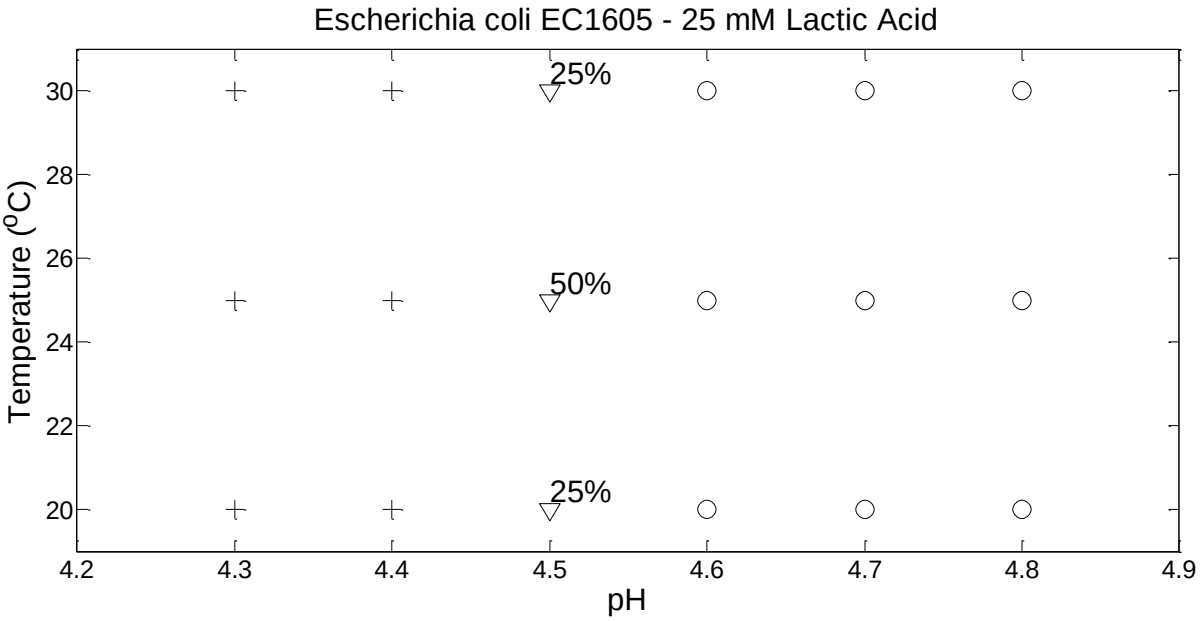
AIC	57.77
Likelihood Ratio	6.91E-36
Log-Likelihood	-25.88




Escherichia coli EC1605 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1605
25°C -0 mM- EC1605
30°C -0 mM- EC1605
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1605 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1605
25°C -25 mM- EC1605
30°C -25 mM- EC1605
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1605 - 0 mM Lactic Acid
25%
12.5%
87.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

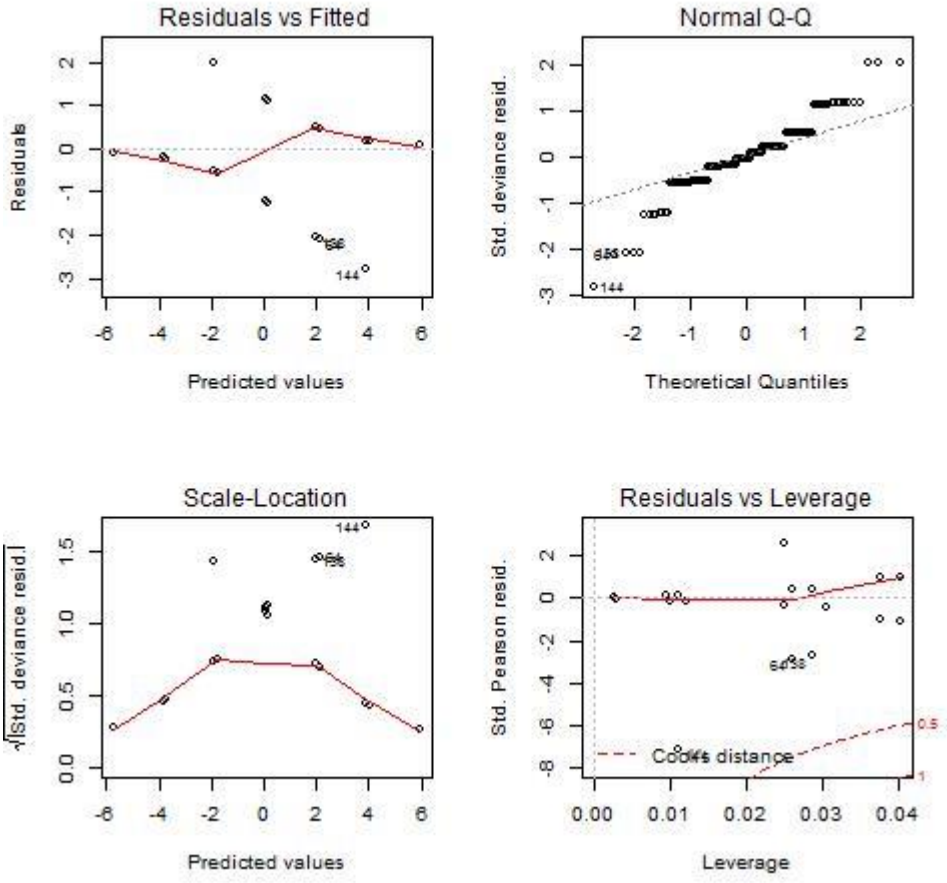

Escherichia coli EC1605 - 25 mM Lactic Acid
25%
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

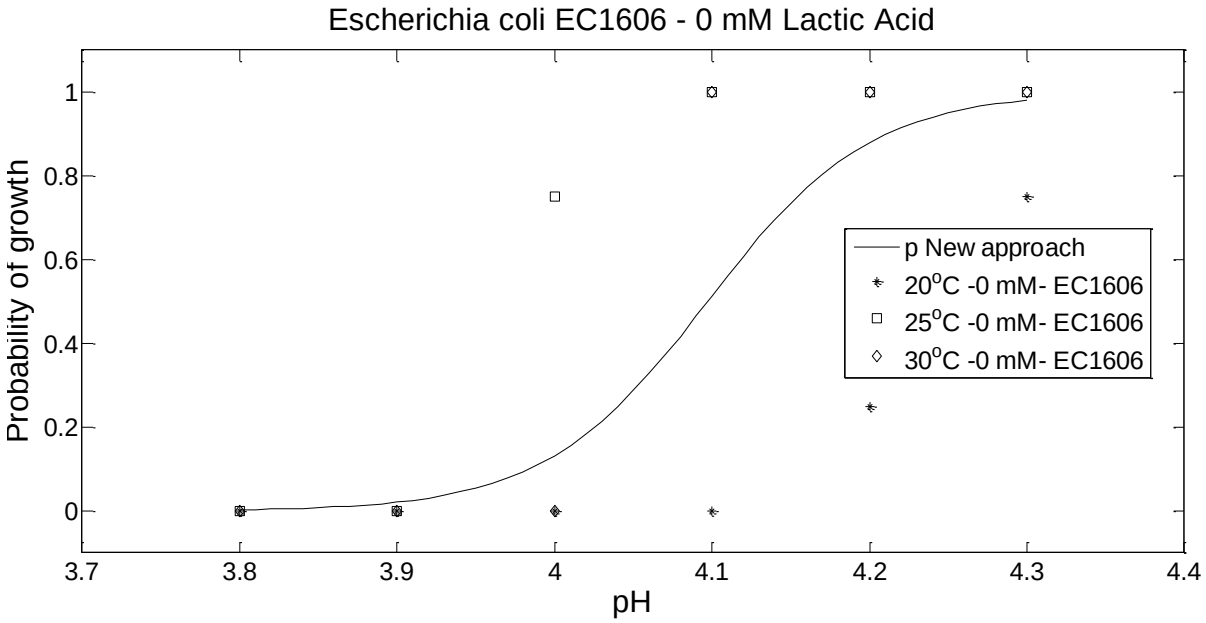
76. *E. coli* EC1606 CNF 1, 28c (Prof. J. Mainil (Ulg, Liège, Belgium))

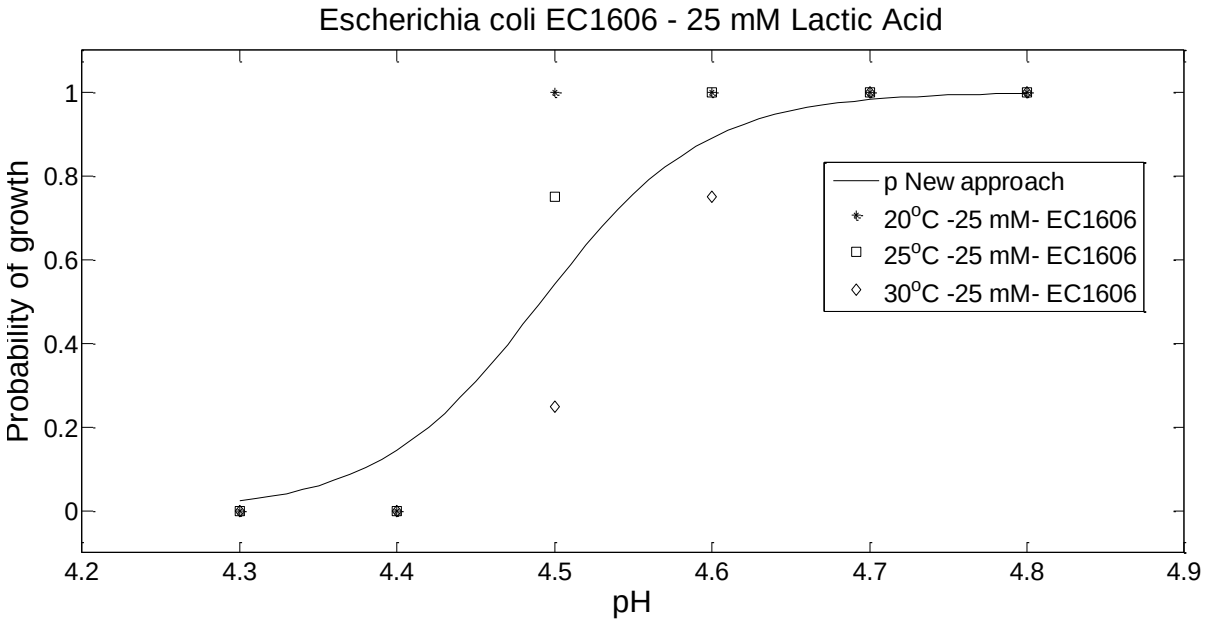
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-79.32	12.60	-6.30	0.00	-107.71	-57.66	0.00	0.00	0.00
pH	19.36	3.08	6.28	0.00	14.06	26.30	2.56E+08	1.28E+06	2.65E+11
LA	-0.31	0.05	-5.55	0.00	-0.43	-0.21	0.74	0.65	0.81

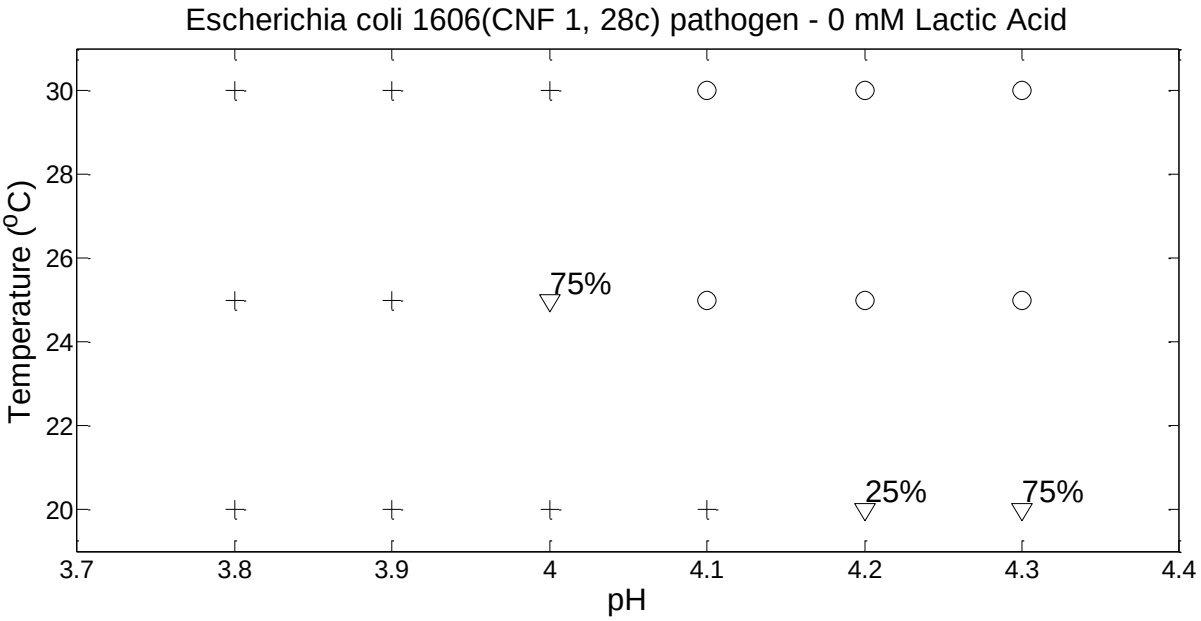
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.85	
pH	1	65.12	154	150.73	0.00
LA	1	66.48	153	84.25	0.00

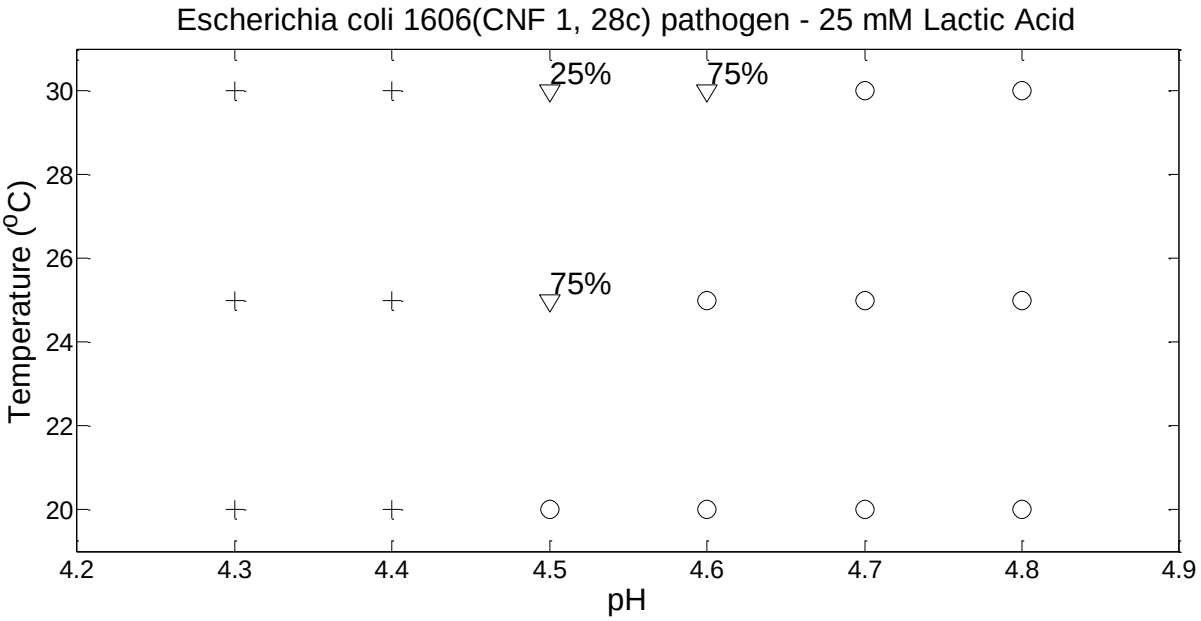
AIC	90.25
Likelihood Ratio	2.65E-29
Log-Likelihood	-42.13




Escherichia coli EC1606 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1606
25°C -0 mM- EC1606
30°C -0 mM- EC1606


Escherichia coli EC1606 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1606
25°C -25 mM- EC1606
30°C -25 mM- EC1606


Escherichia coli 1606(CNF 1, 28c) pathogen - 0 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
75%
25%
75%
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

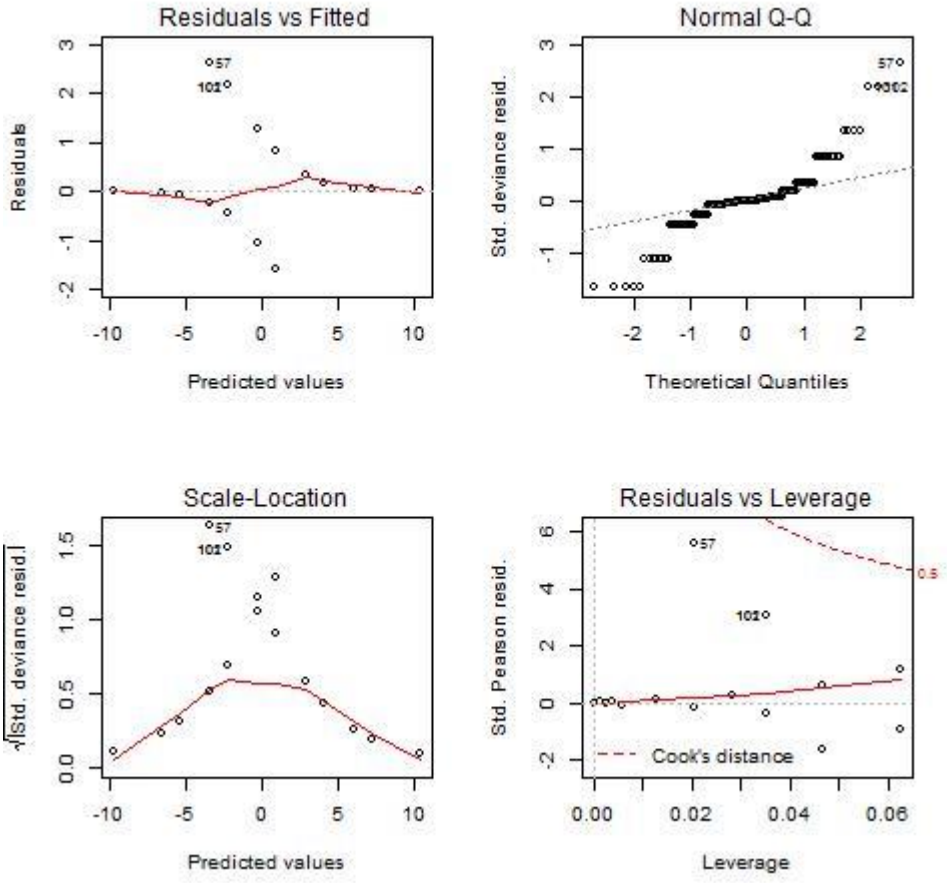

Escherichia coli 1606(CNF 1, 28c) pathogen - 25 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
25%
75%
75%
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

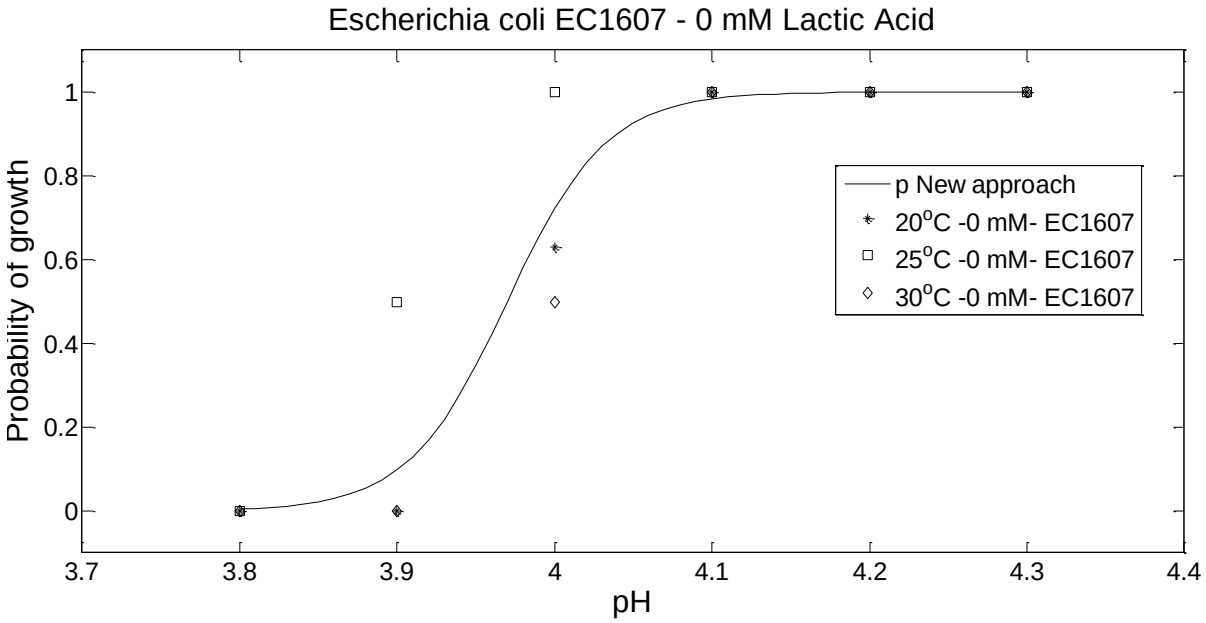
77. *E. coli* EC1607 CNF 1, 559 (Prof. J. Mainil (Ulg, Liège, Belgium))

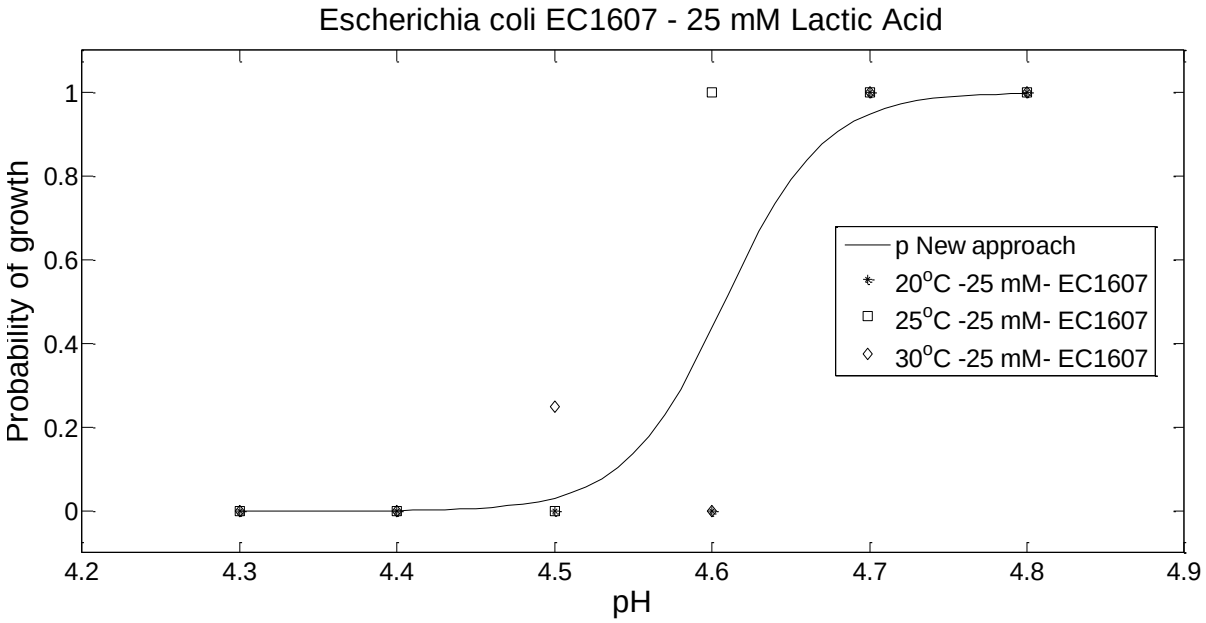
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-126.03	24.35	-5.18	0.00	-184.23	-86.29	0.00	0.00	0.00
pH	31.75	6.13	5.18	0.00	21.74	46.37	6.12E+13	2.75E+09	1.38E+20
LA	-0.81	0.16	-5.14	0.00	-1.18	-0.55	0.44	0.31	0.58

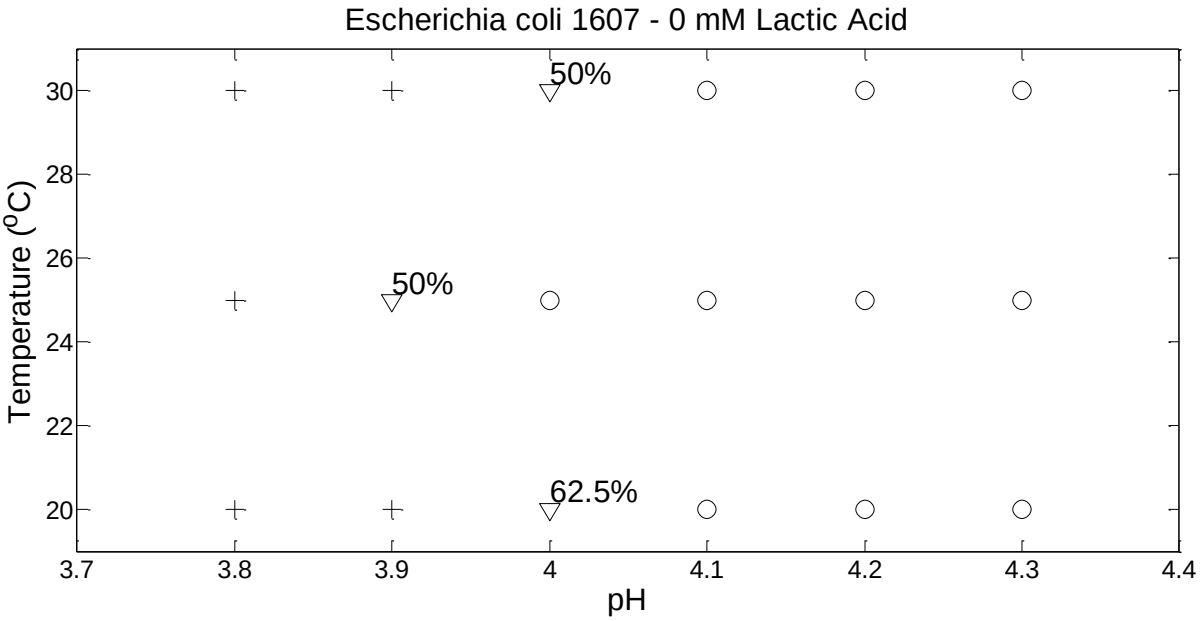
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.26	
pH	1	12.99	154	203.27	0.00
LA	1	145.80	153	57.48	0.00

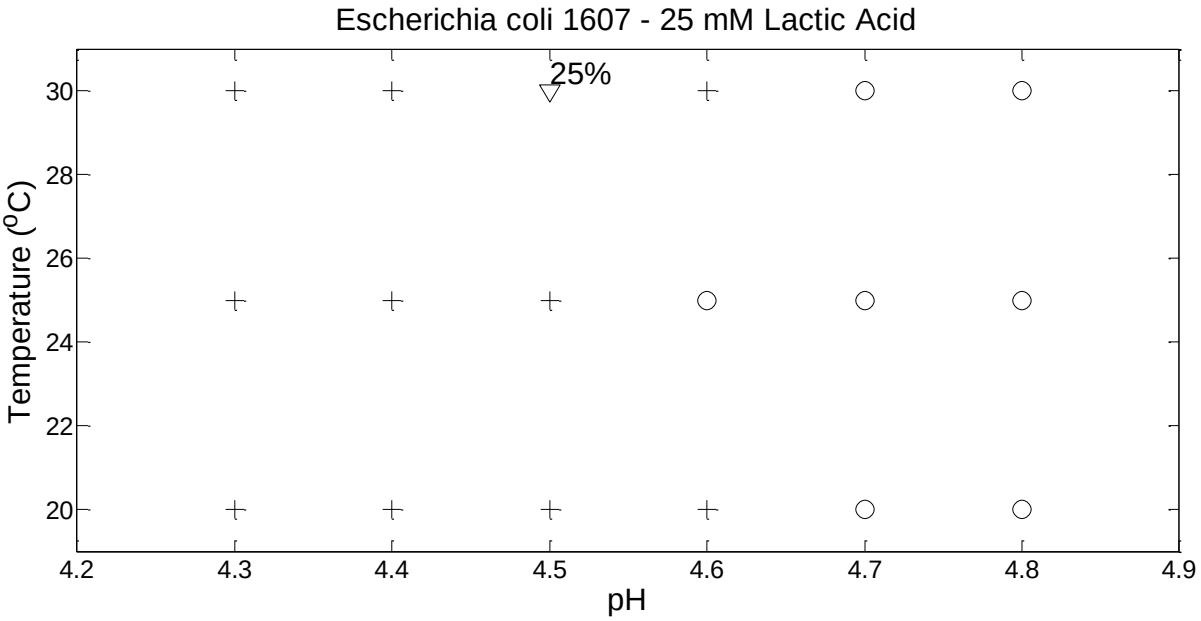
AIC	63.48
Likelihood Ratio	3.31E-35
Log-Likelihood	-28.74




Escherichia coli EC1607 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1607
25°C -0 mM- EC1607
30°C -0 mM- EC1607
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1607 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1607
25°C -25 mM- EC1607
30°C -25 mM- EC1607
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli 1607 - 0 mM Lactic Acid
50%
50%
62.5%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

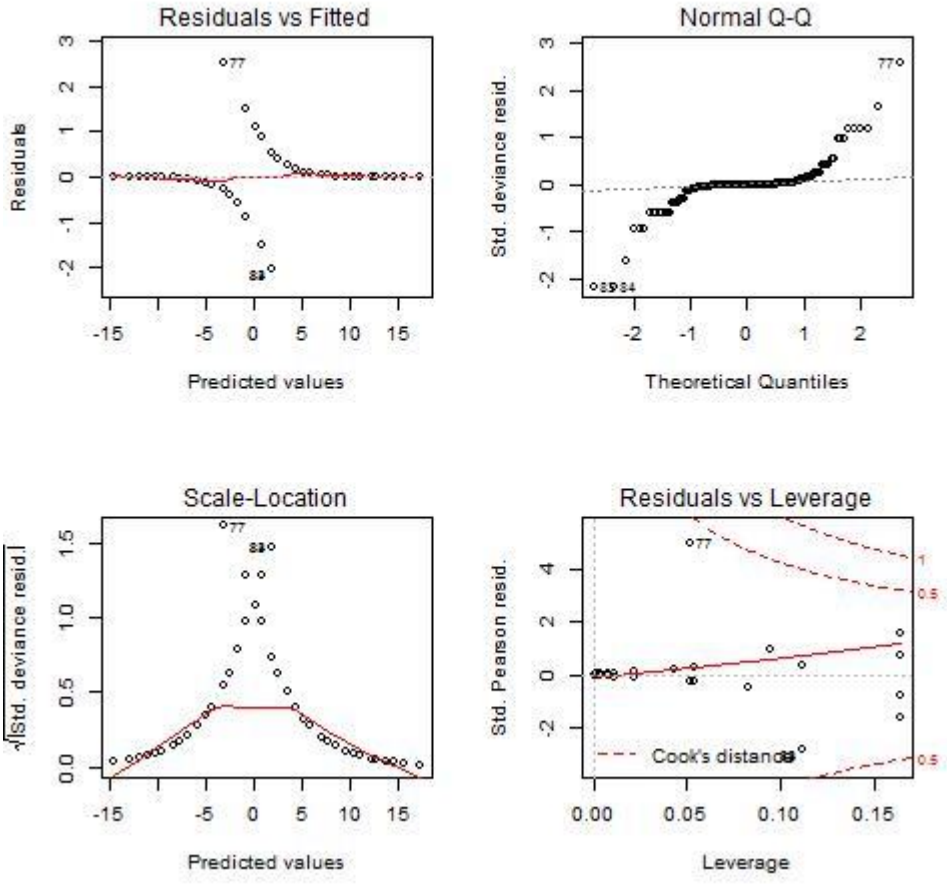

Escherichia coli 1607 - 25 mM Lactic Acid
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

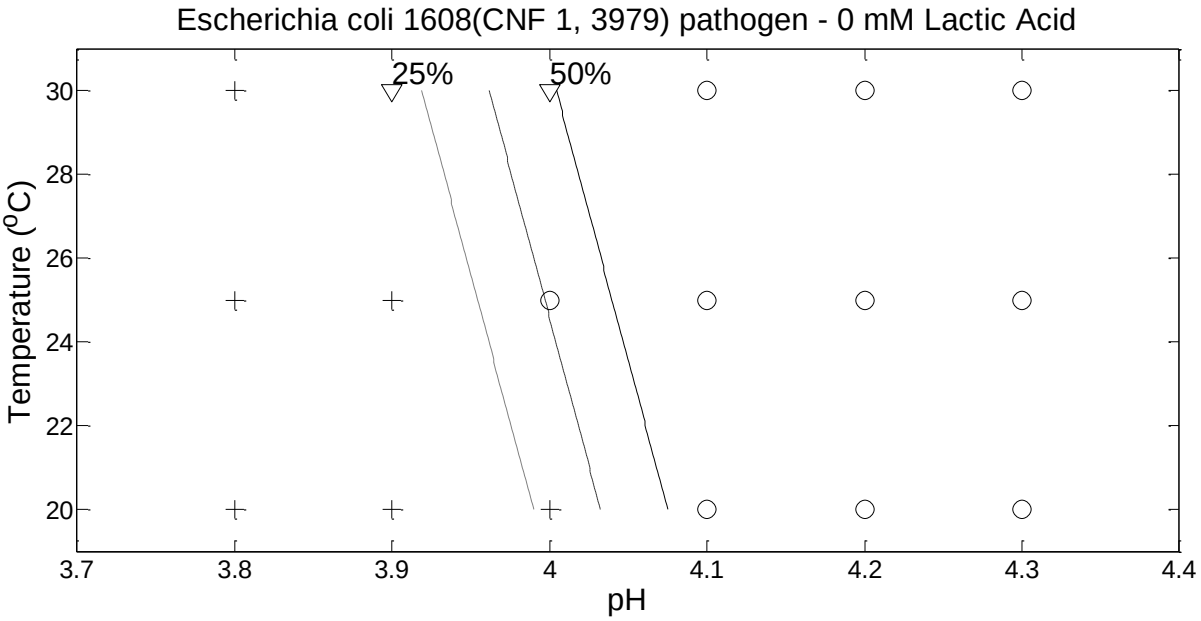
78. *E. coli* EC1608 CNF 1, 3979 (Prof. J. Mainil (Ulg, Liège, Belgium))

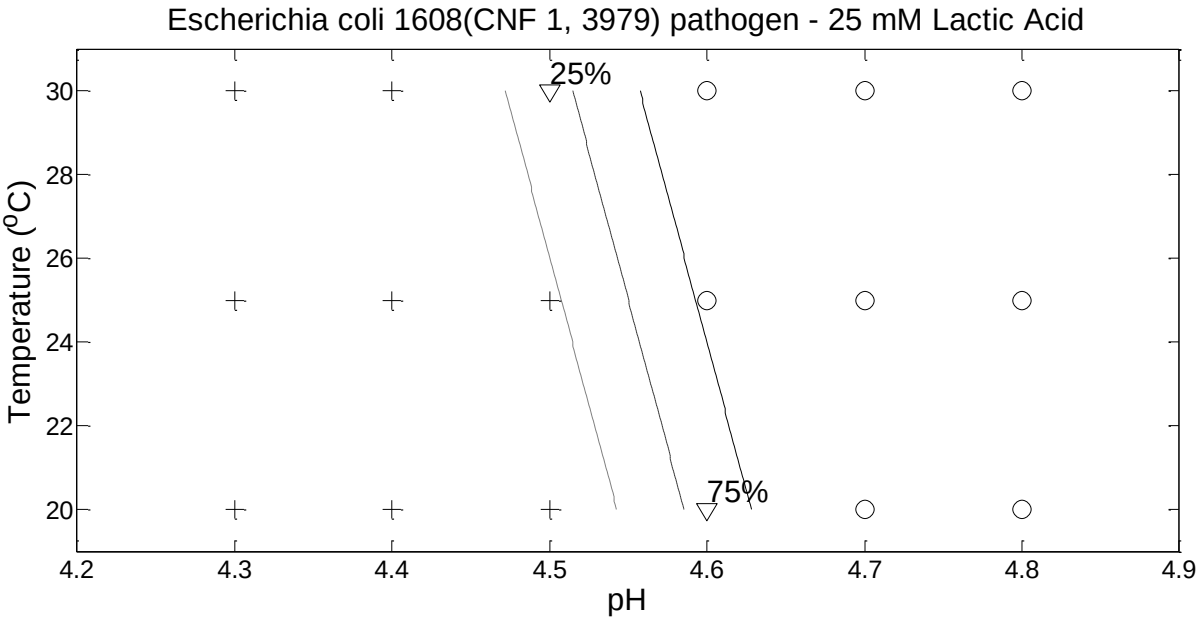
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-214.66	52.55	-4.09	0.00	-344.56	-133.30	0.00	0.00	0.00
pH	51.43	12.64	4.07	0.00	31.87	82.63	2.16E+22	6.92E+13	7.71E+35
LA	-1.14	0.28	-4.00	0.00	-1.84	-0.70	0.32	0.16	0.50
Temp	0.36	0.13	2.72	0.01	0.13	0.68	1.44	1.14	1.97

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.24	
pH	1	34.12	154	182.12	0.00
LA	1	136.95	153	45.17	0.00
Temp	1	10.86	152	34.31	0.00

AIC	42.31
Likelihood Ratio	3.38E-39
Log-Likelihood	-17.15




Escherichia coli 1608(CNF 1, 3979) pathogen - 0 mM Lactic Acid
25%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

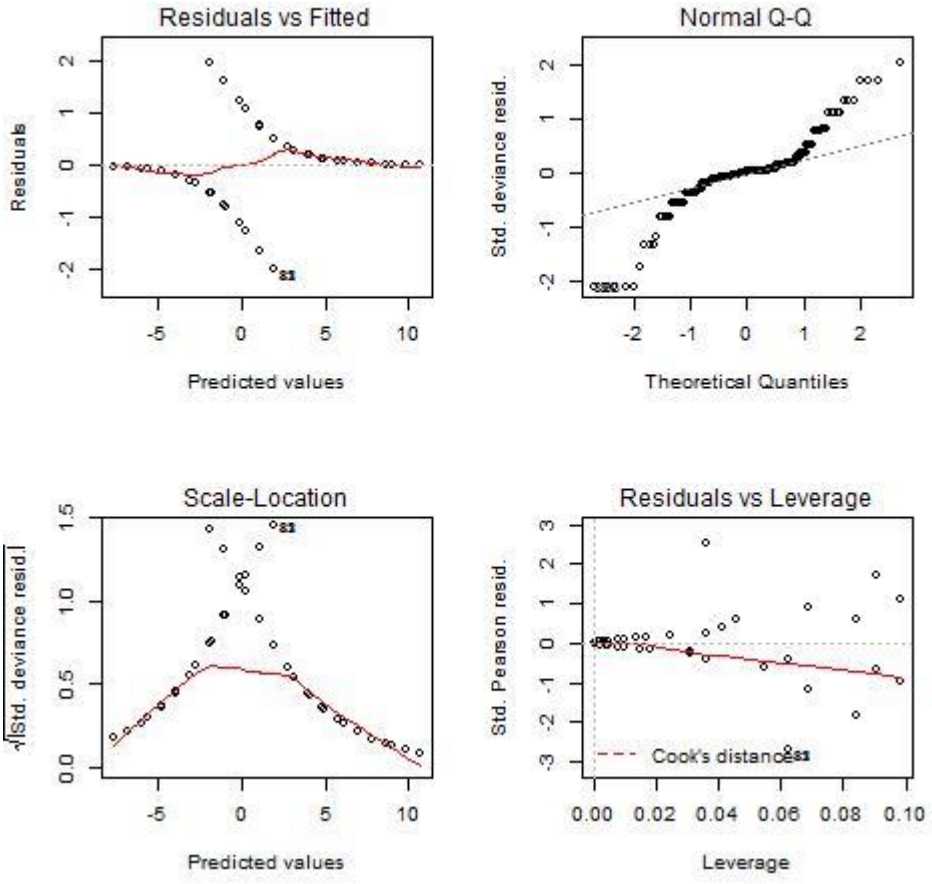

Escherichia coli 1608(CNF 1, 3979) pathogen - 25 mM Lactic Acid
25%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

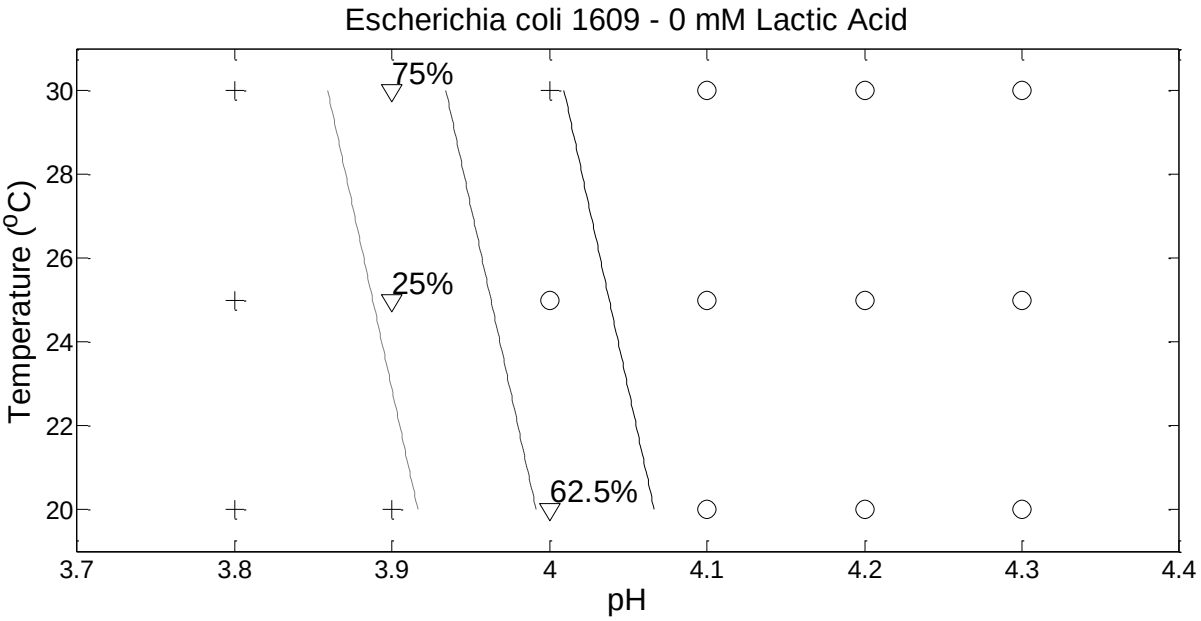
79. *E. coli* EC1609 CNF 1,83KH77 (Prof. J. Mainil (Ulg, Liège, Belgium))

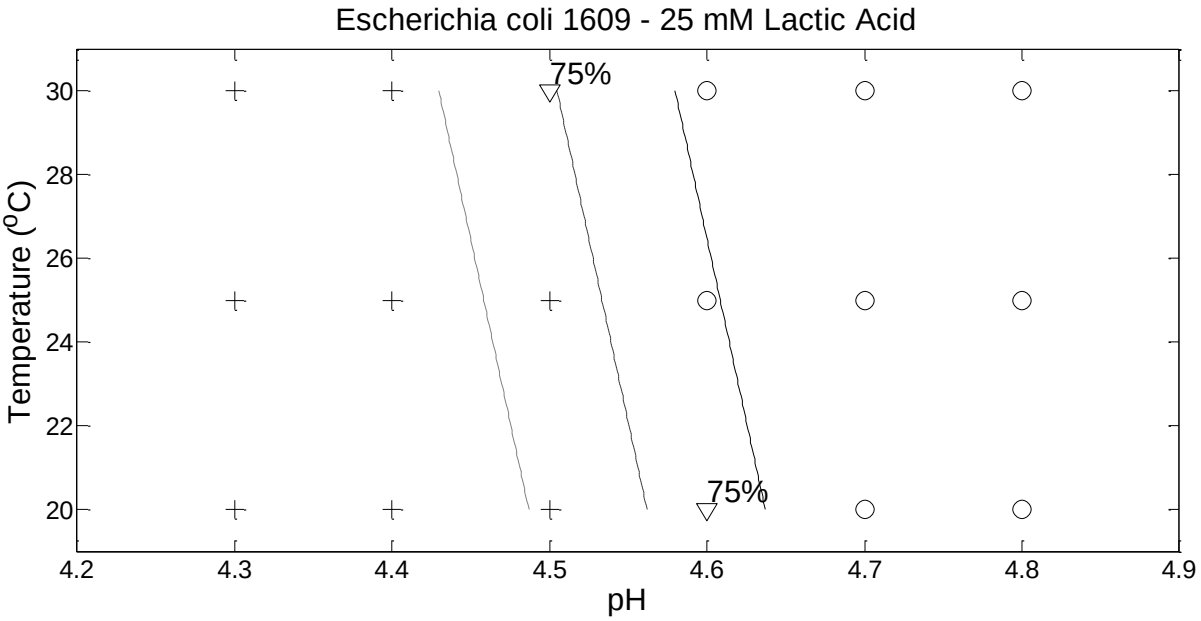
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-120.17	22.42	-5.36	0.00	-172.65	-83.18	0.00	0.00	0.00
pH	29.27	5.45	5.37	0.00	20.27	41.98	5.14E+12	6.33E+08	1.71E+18
LA	-0.67	0.13	-5.24	0.00	-0.96	-0.46	0.51	0.38	0.63
Temp	0.17	0.08	1.98	0.05	0.01	0.35	1.18	1.01	1.41

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	214.18	
pH	1	25.62	154	188.56	0.00
LA	1	122.92	153	65.65	0.00
Temp	1	4.32	152	61.32	0.04

AIC	69.32
Likelihood Ratio	6.37E-33
Log-Likelihood	-30.66




Escherichia coli 1609 - 0 mM Lactic Acid
75%
25%
62.5%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

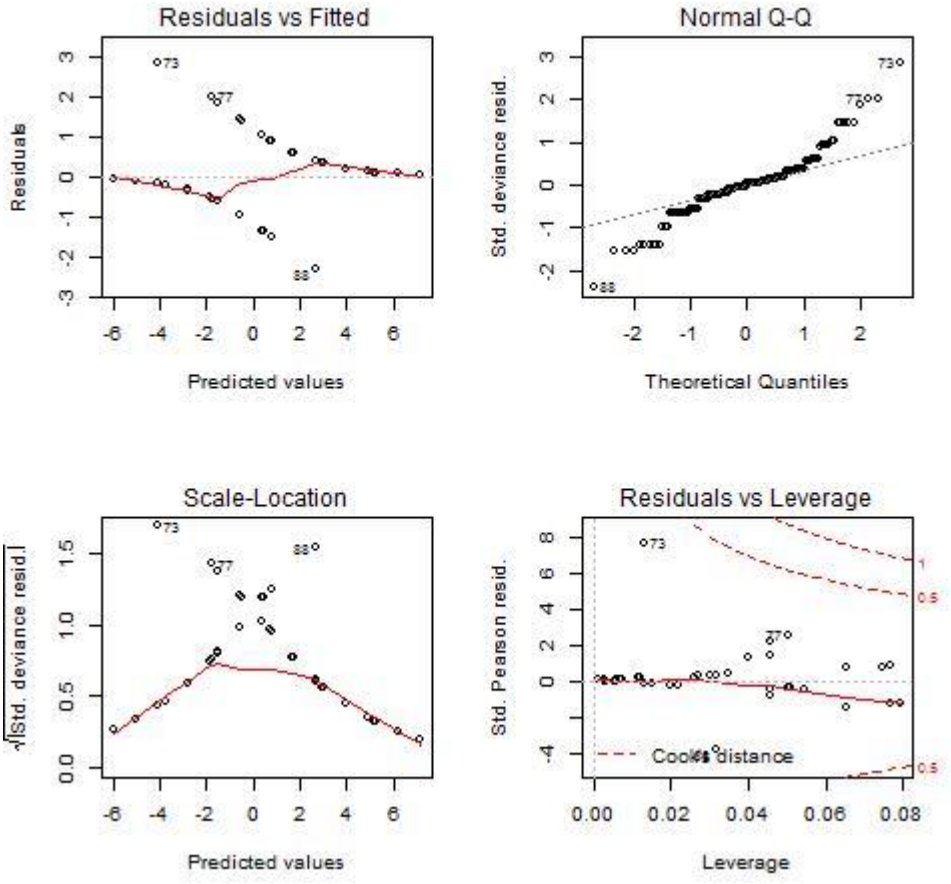

Escherichia coli 1609 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

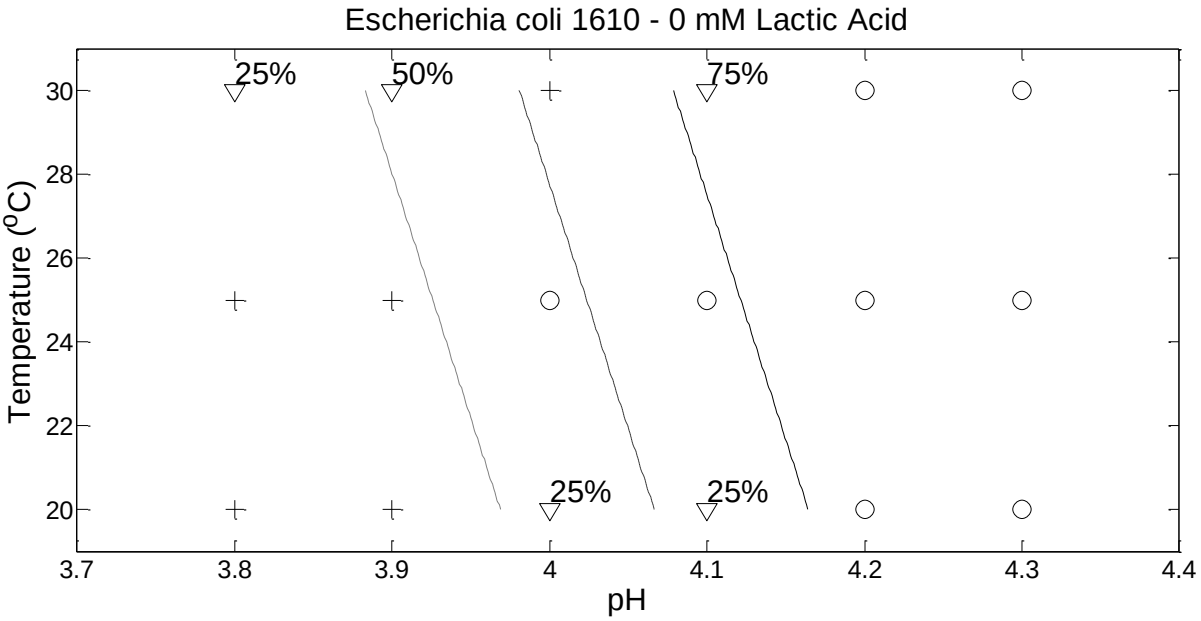
80. *E. coli* EC1610 CNF 1, BM3-1 (Prof. J. Mainil (Ulg, Liège, Belgium))

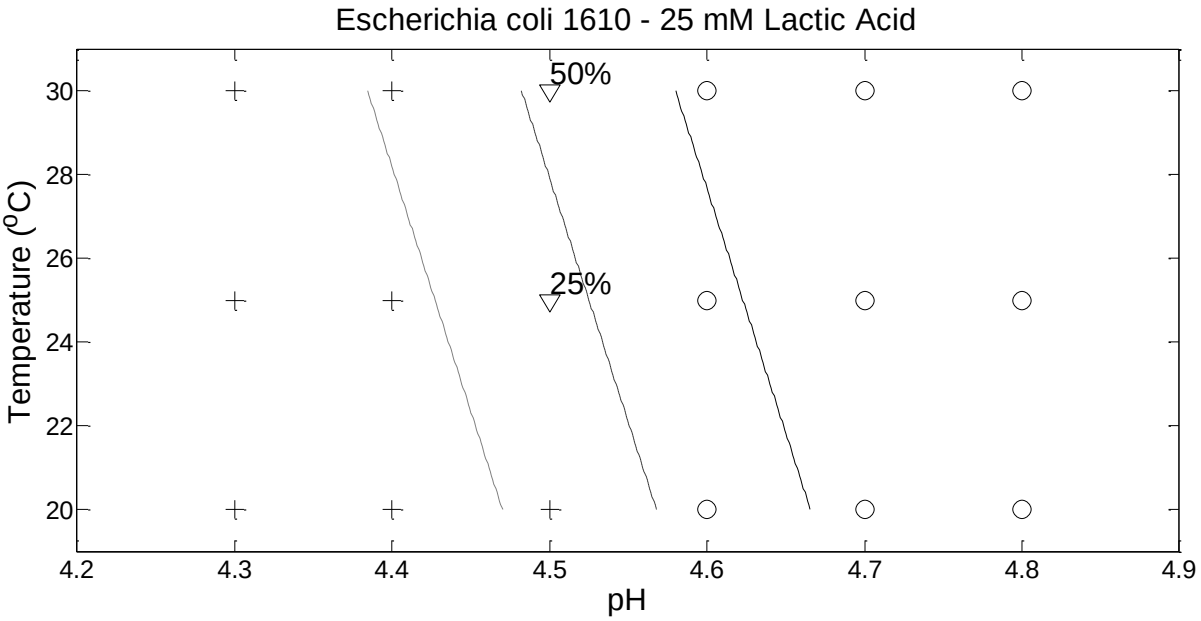
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-95.21	15.82	-6.02	0.00	-131.27	-68.40	0.00	0.00	0.00
pH	22.47	3.75	5.99	0.00	16.12	31.02	5.72E+09	9.97E+06	2.96E+13
LA	-0.45	0.08	-5.62	0.00	-0.63	-0.31	0.64	0.53	0.73
Temp	0.19	0.08	2.51	0.01	0.05	0.35	1.21	1.05	1.42

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.24	
pH	1	40.54	154	175.70	0.00
LA	1	94.02	153	81.68	0.00
Temp	1	7.09	152	74.59	0.01

AIC	82.59
Likelihood Ratio	1.67E-30
Log-Likelihood	-37.29




Escherichia coli 1610 - 0 mM Lactic Acid
25%
50%
75%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

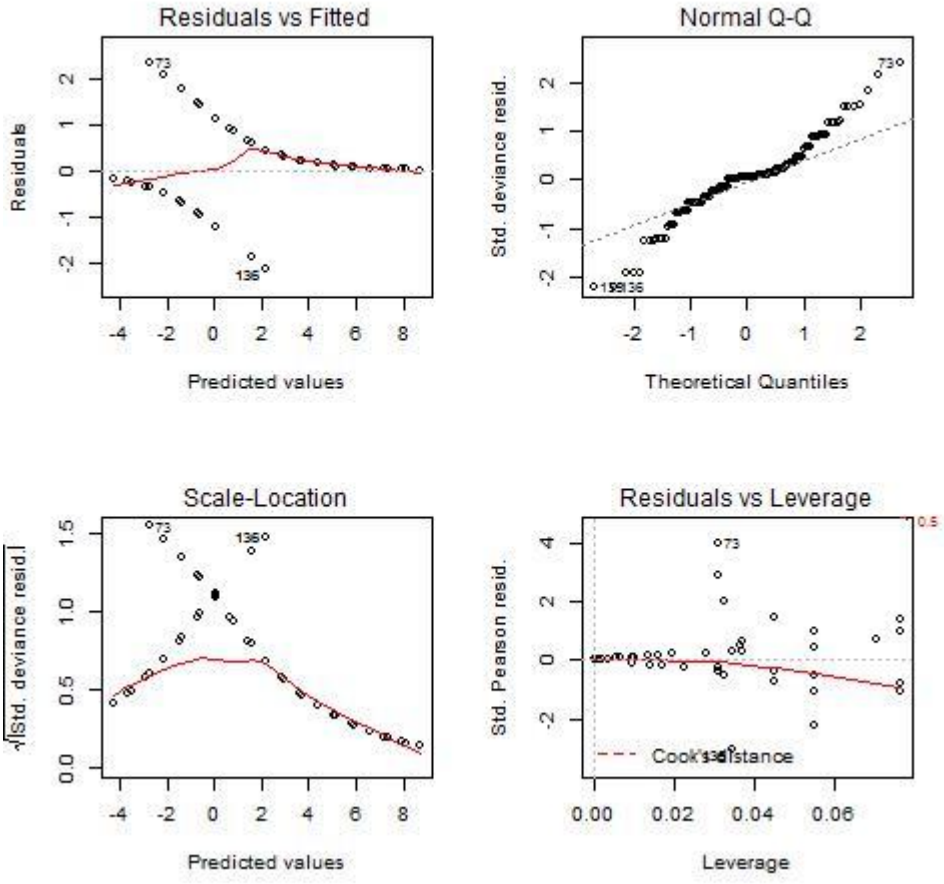

Escherichia coli 1610 - 25 mM Lactic Acid
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

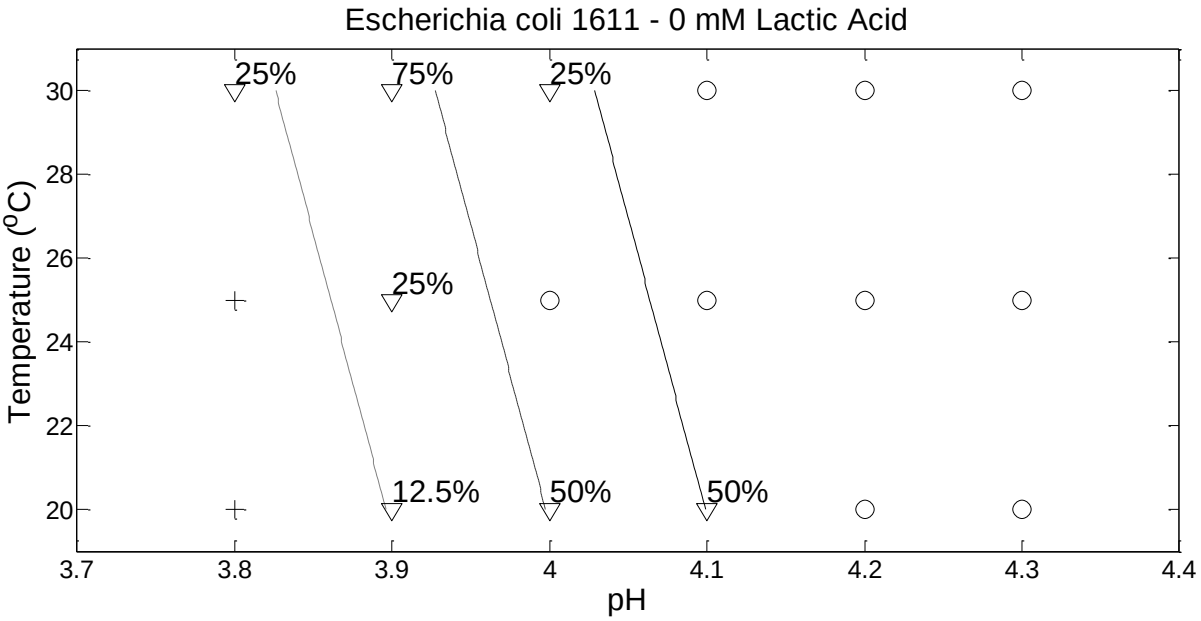
81. *E. coli* EC1611 CNF2, B28b (Prof. J. Mainil (Ulg, Liège, Belgium))

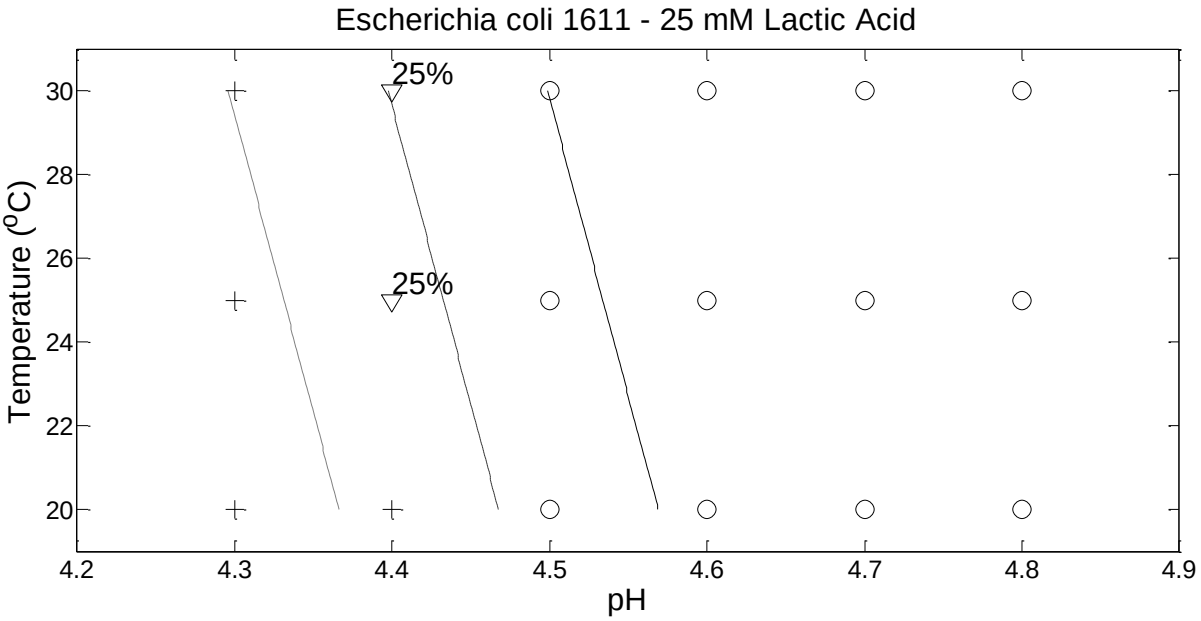
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-89.73	15.31	-5.86	0.00	-124.47	-63.67	0.00	0.00	0.00
pH	21.69	3.71	5.85	0.00	15.37	30.09	2.62E+09	4.72E+06	1.17E+13
LA	-0.41	0.07	-5.47	0.00	-0.58	-0.28	0.67	0.56	0.76
Temp	0.15	0.07	2.11	0.04	0.02	0.30	1.16	1.02	1.35

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	204.81	
pH	1	43.49	154	161.32	0.00
LA	1	76.85	153	84.47	0.00
Temp	1	4.81	152	79.66	0.03

AIC	87.66
Likelihood Ratio	6E-27
Log-Likelihood	-39.83




Escherichia coli 1611 - 0 mM Lactic Acid
25%
75%
25%
25%
12.5%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

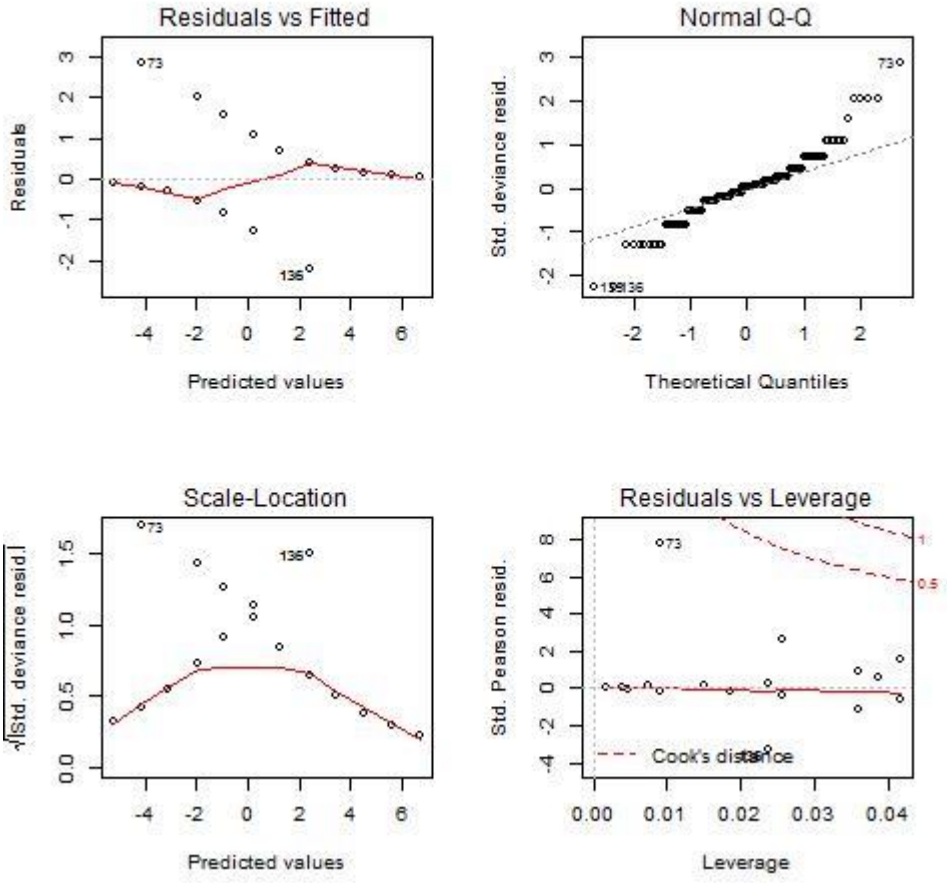

Escherichia coli 1611 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

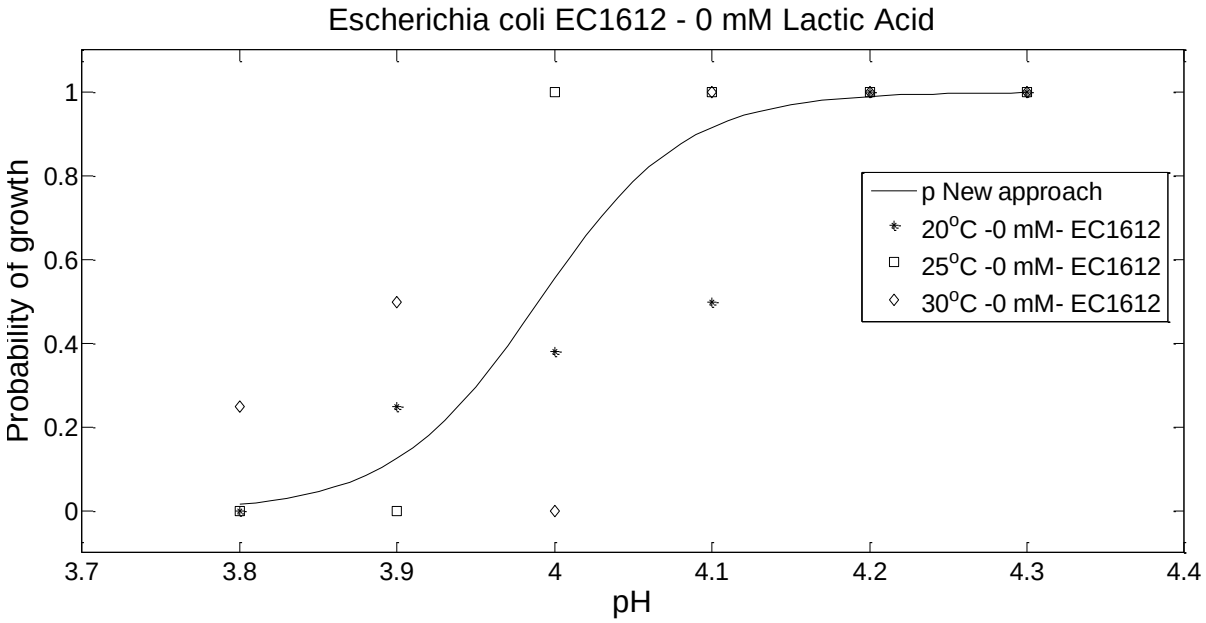
82. *E. coli* EC1612 CNF2, B4A1 (Prof. J. Mainil (Ulg, Liège, Belgium))

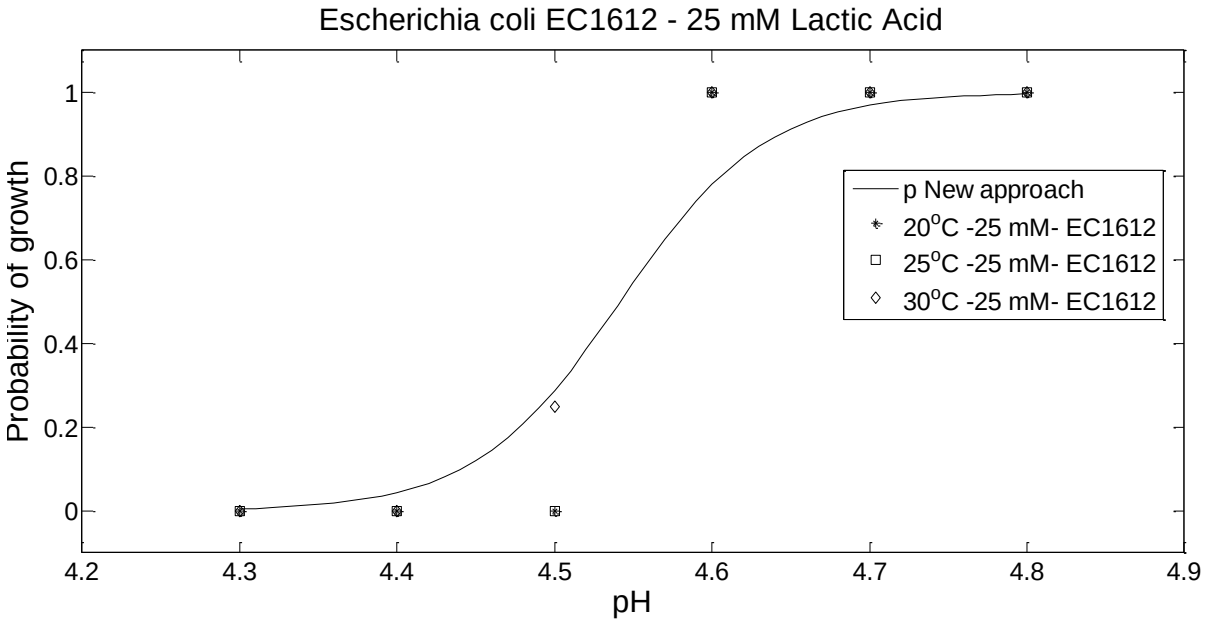
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-86.48	14.20	-6.09	0.00	-118.71	-62.29	0.00	0.00	0.00
pH	21.67	3.56	6.08	0.00	15.61	29.76	2.59E+09	6.01E+06	8.40E+12
LA	-0.48	0.08	-5.80	0.00	-0.66	-0.34	0.62	0.51	0.71

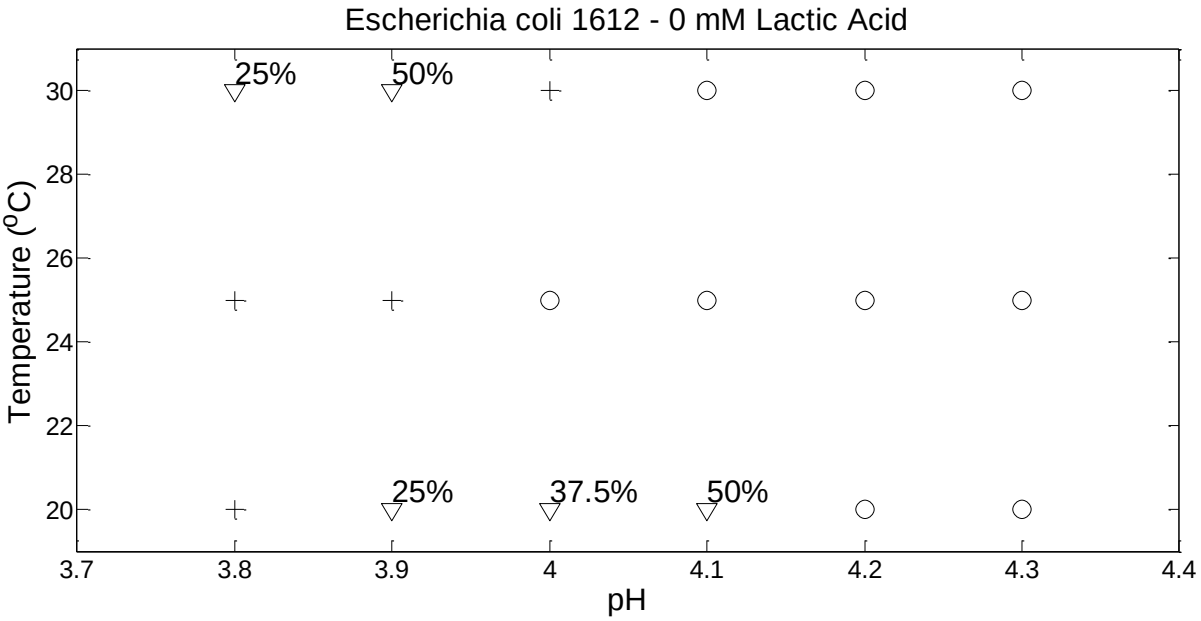
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.62	
pH	1	26.90	154	188.72	0.00
LA	1	107.36	153	81.36	0.00

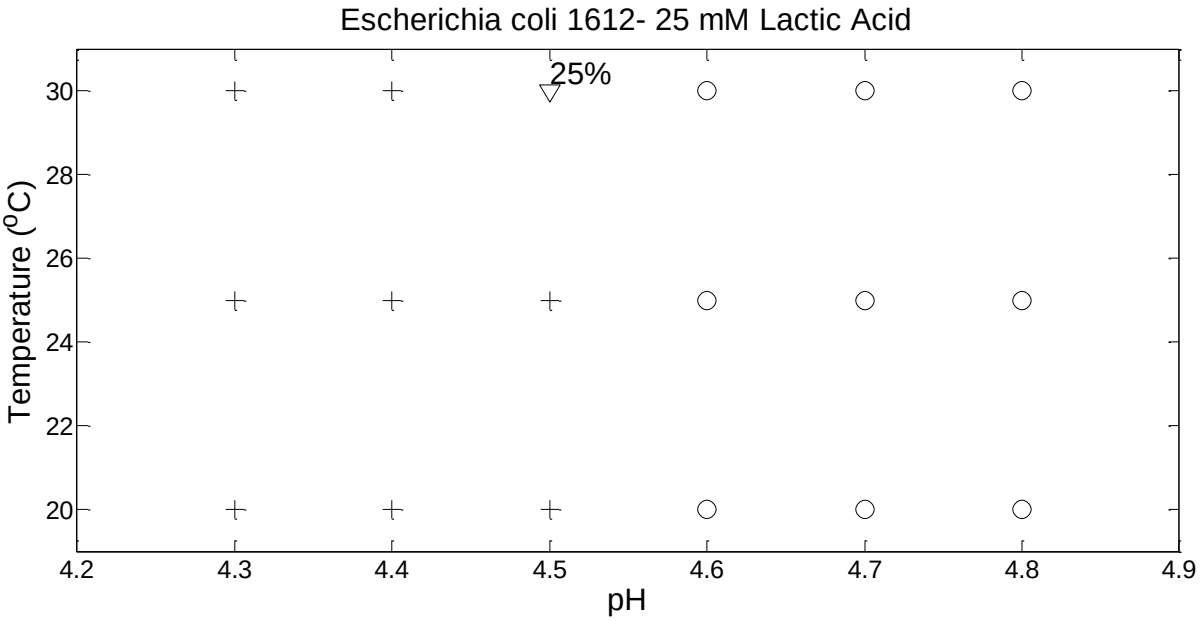
AIC	87.36
Likelihood Ratio	7E-30
Log-Likelihood	-40.68




Escherichia coli EC1612 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1612
25°C -0 mM- EC1612
30°C -0 mM- EC1612
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1612 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1612
25°C -25 mM- EC1612
30°C -25 mM- EC1612
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli 1612 - 0 mM Lactic Acid
25%
50%
25%
37.5%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

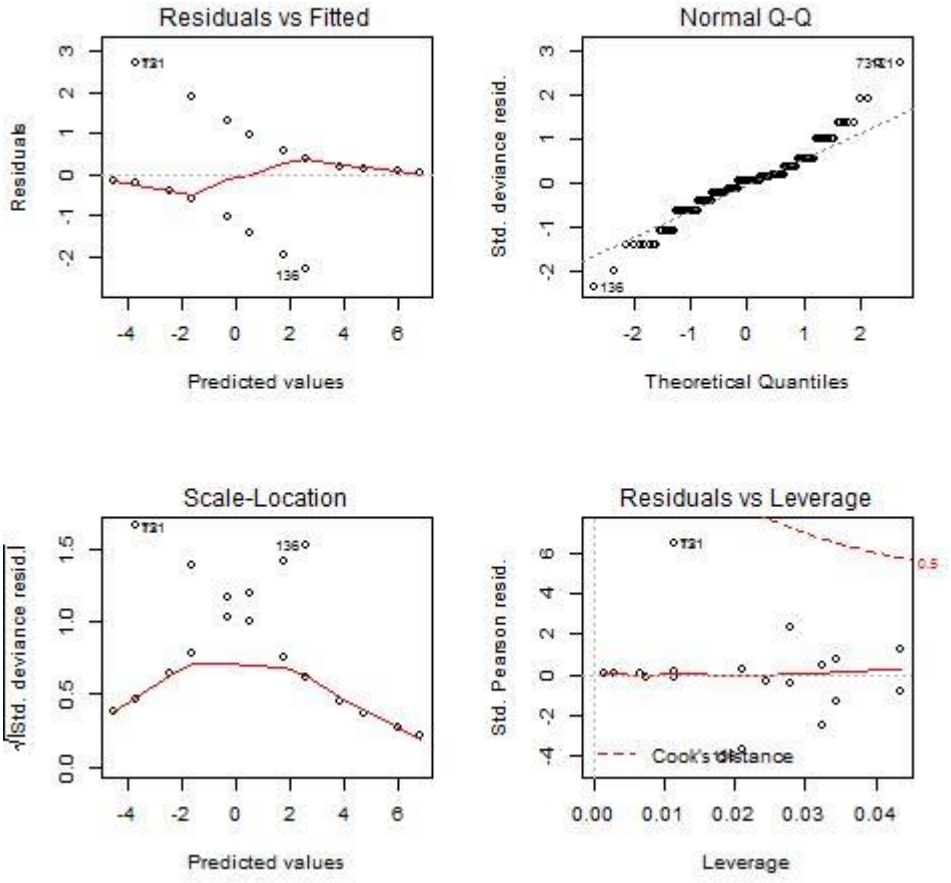

Escherichia coli 1612- 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

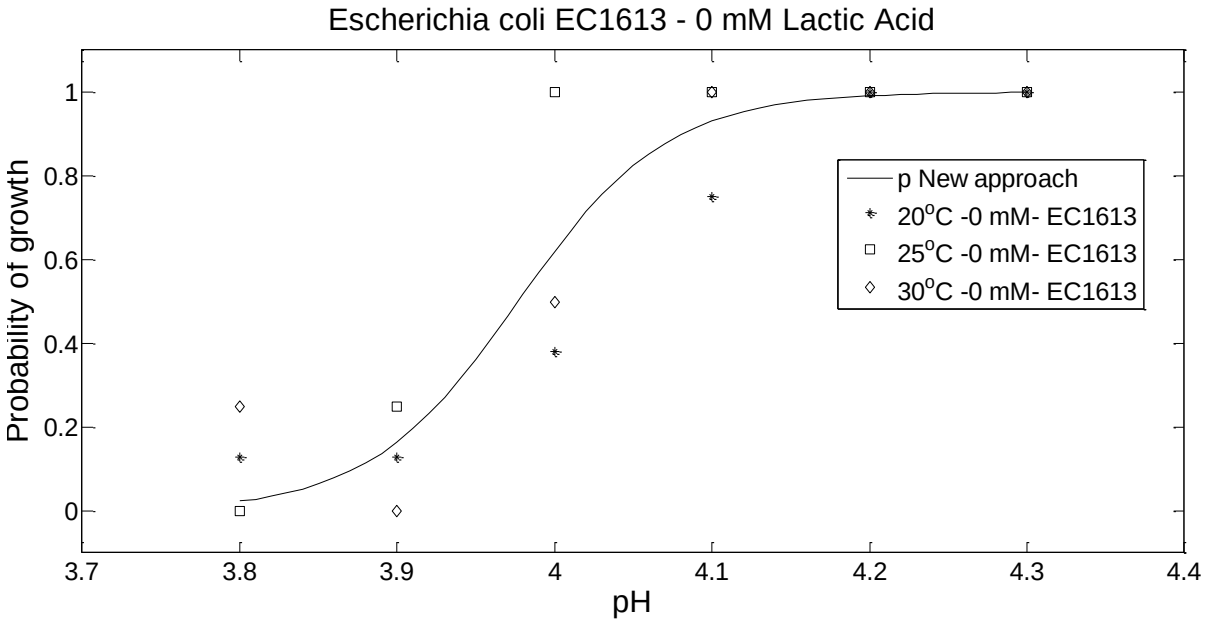
83. *E. coli* EC1613 CNF2,B20a (Prof. J. Mainil (Ulg, Liège, Belgium))

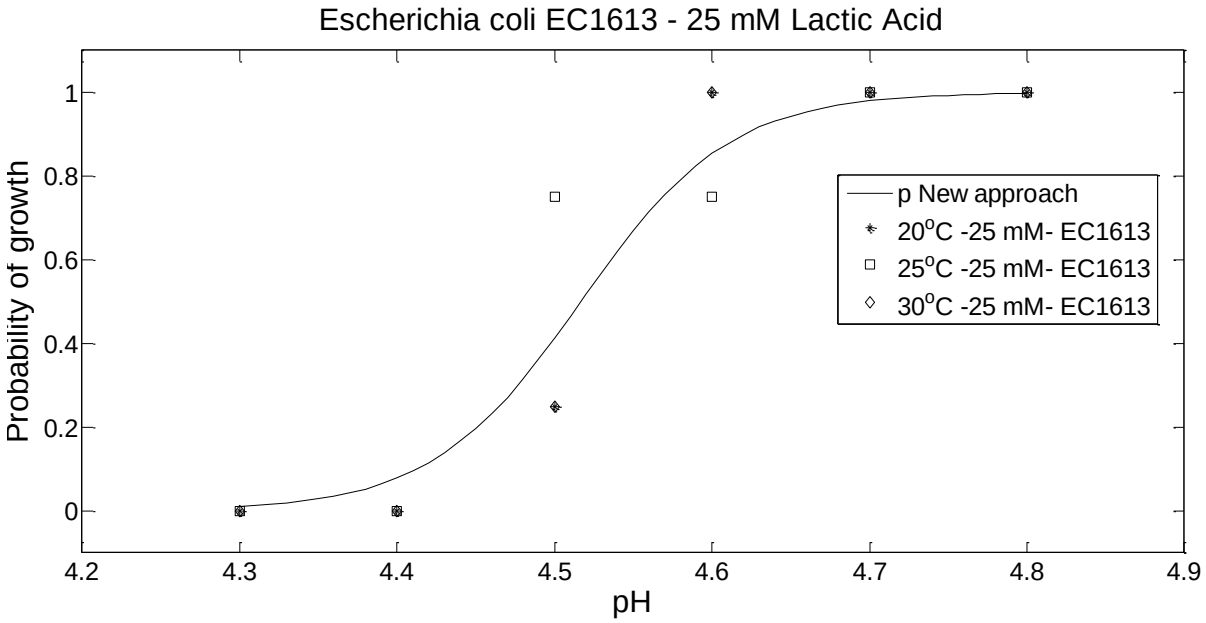
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-83.96	13.72	-6.12	0.00	-115.01	-60.51	0.00	0.00	0.00
pH	21.11	3.45	6.12	0.00	15.22	28.92	1.48E+09	4.06E+06	3.64E+12
LA	-0.46	0.08	-5.82	0.00	-0.63	-0.32	0.63	0.53	0.73

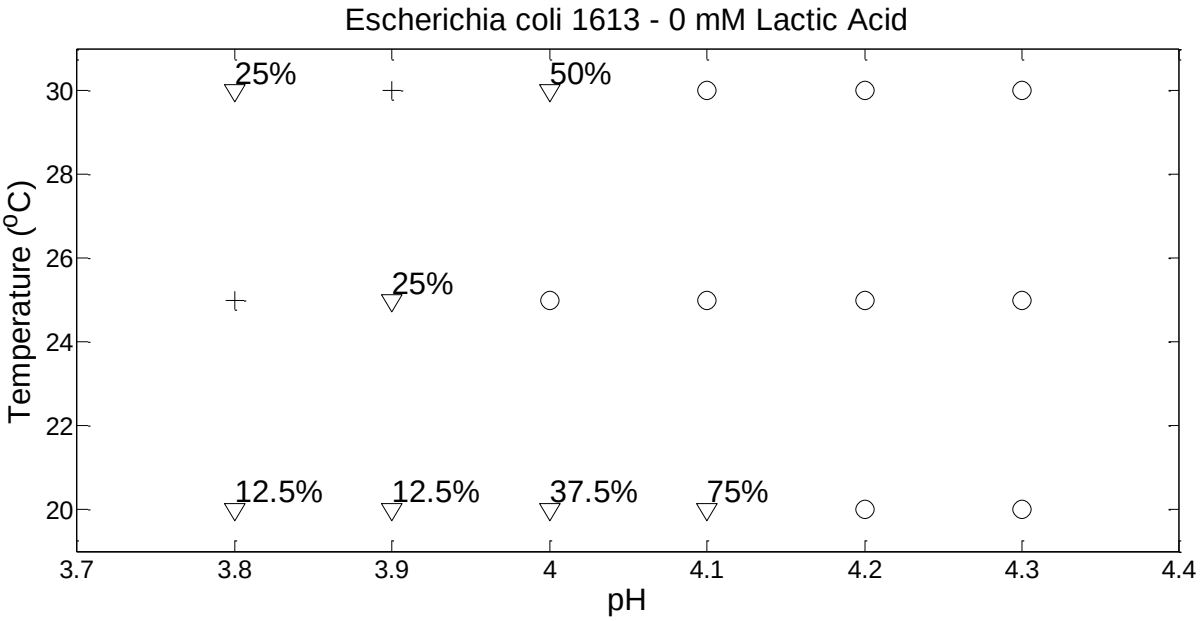
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	213.69	
pH	1	28.28	154	185.41	0.00
LA	1	101.76	153	83.65	0.00

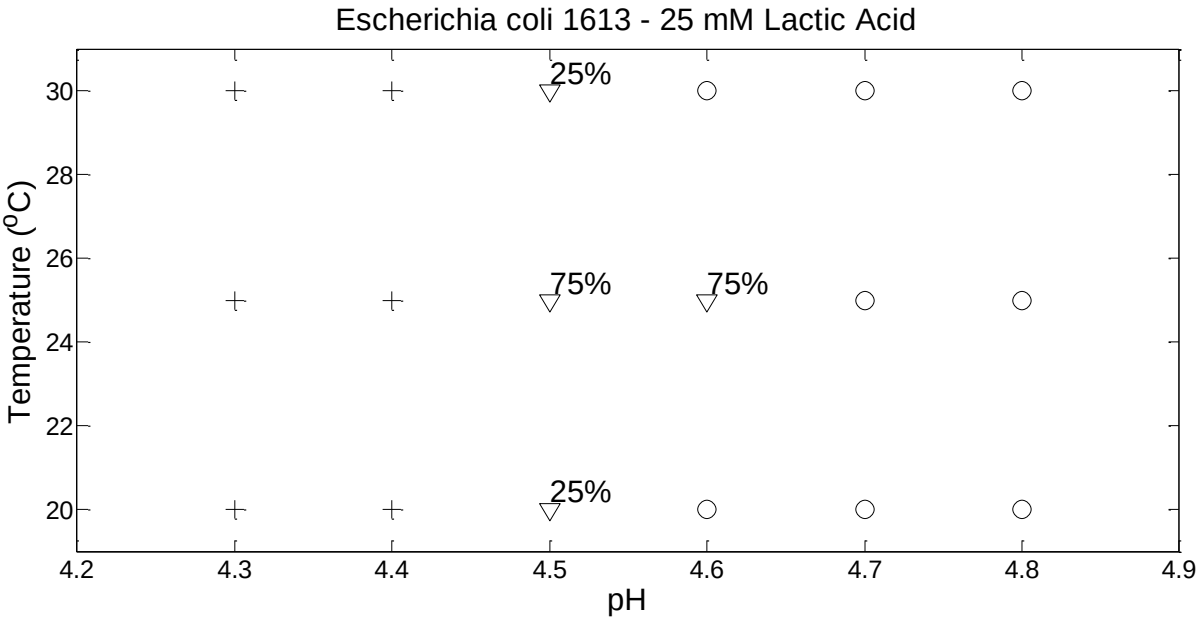
AIC	89.65
Likelihood Ratio	5.79E-29
Log-Likelihood	-41.83




Escherichia coli EC1613 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1613
25°C -0 mM- EC1613
30°C -0 mM- EC1613
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1613 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1613
25°C -25 mM- EC1613
30°C -25 mM- EC1613
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli 1613 - 0 mM Lactic Acid
25%
50%
25%
12.5%
12.5%
37.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

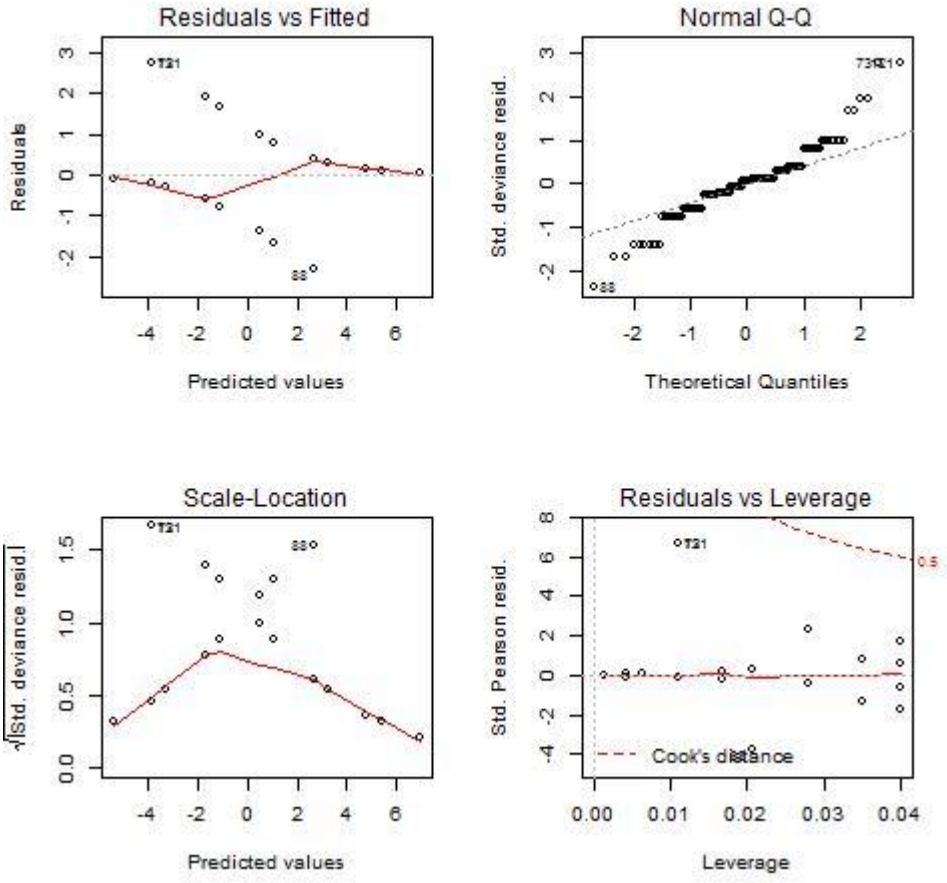

Escherichia coli 1613 - 25 mM Lactic Acid
25%
75%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

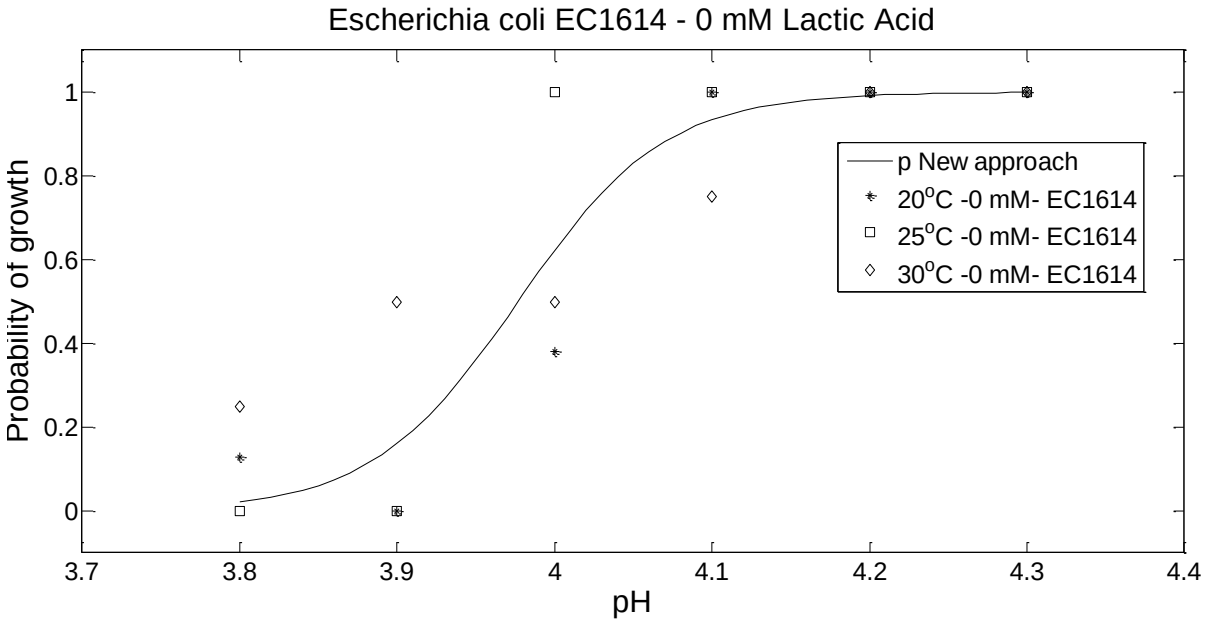
84. *E. coli* EC1614 CNF2,B26a (Prof. J. Mainil (Ulg, Liège, Belgium))

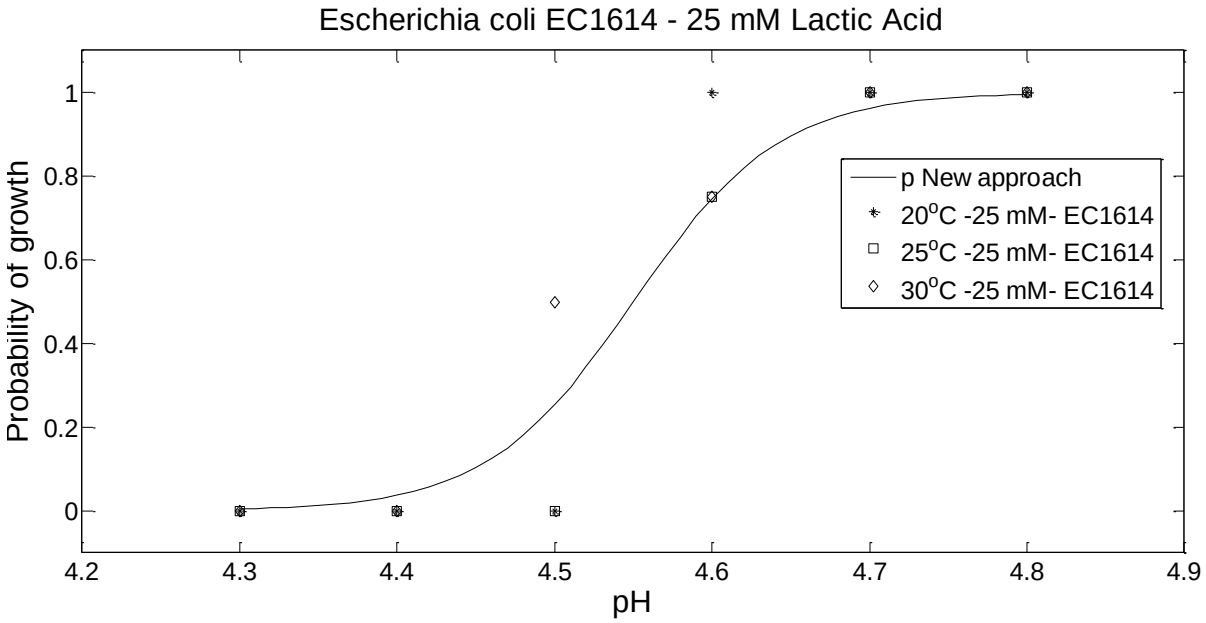
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-85.55	13.99	-6.11	0.00	-117.13	-61.64	0.00	0.00	0.00
pH	21.51	3.52	6.11	0.00	15.50	29.46	2.20E+09	5.38E+06	6.20E+12
LA	-0.49	0.08	-5.85	0.00	-0.68	-0.35	0.61	0.51	0.71

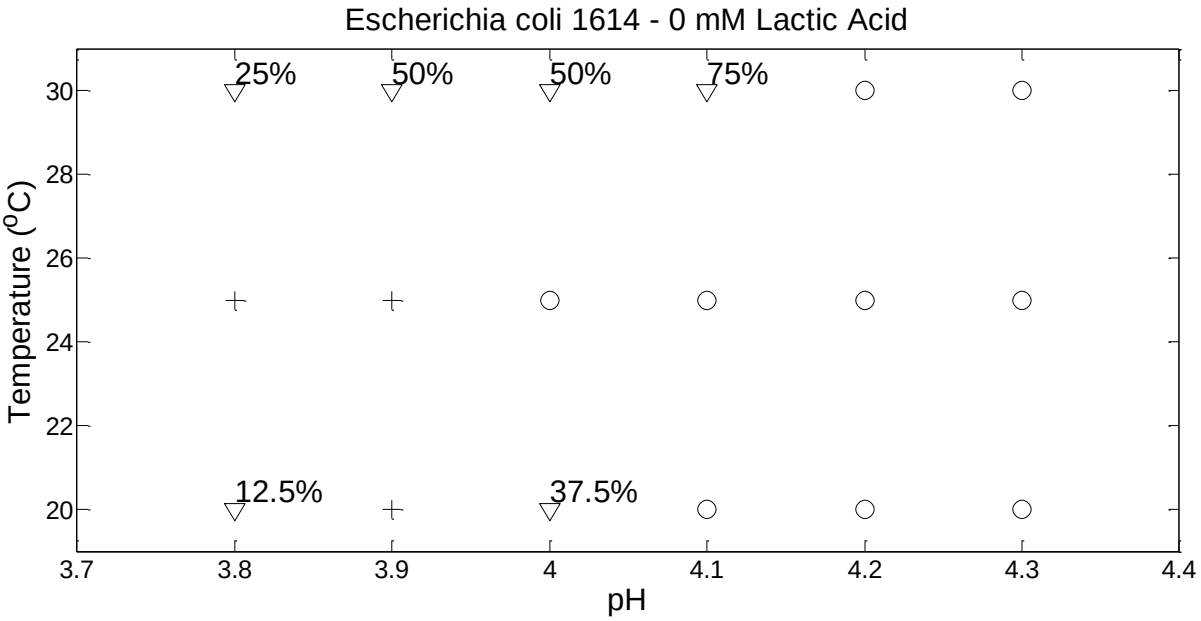
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.34	
pH	1	22.14	154	193.20	0.00
LA	1	110.95	153	82.25	0.00

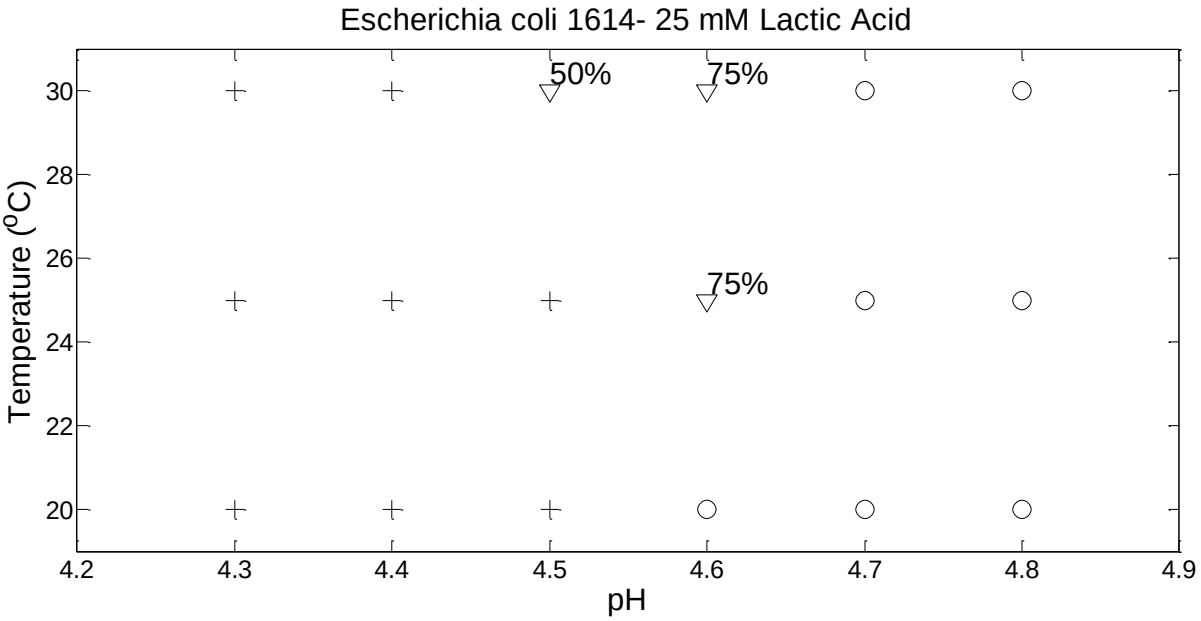
AIC	88.25
Likelihood Ratio	1.26E-29
Log-Likelihood	-41.12




Escherichia coli EC1614 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1614
25°C -0 mM- EC1614
30°C -0 mM- EC1614
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1614 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1614
25°C -25 mM- EC1614
30°C -25 mM- EC1614
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli 1614 - 0 mM Lactic Acid
25%
50%
50%
75%
12.5%
37.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

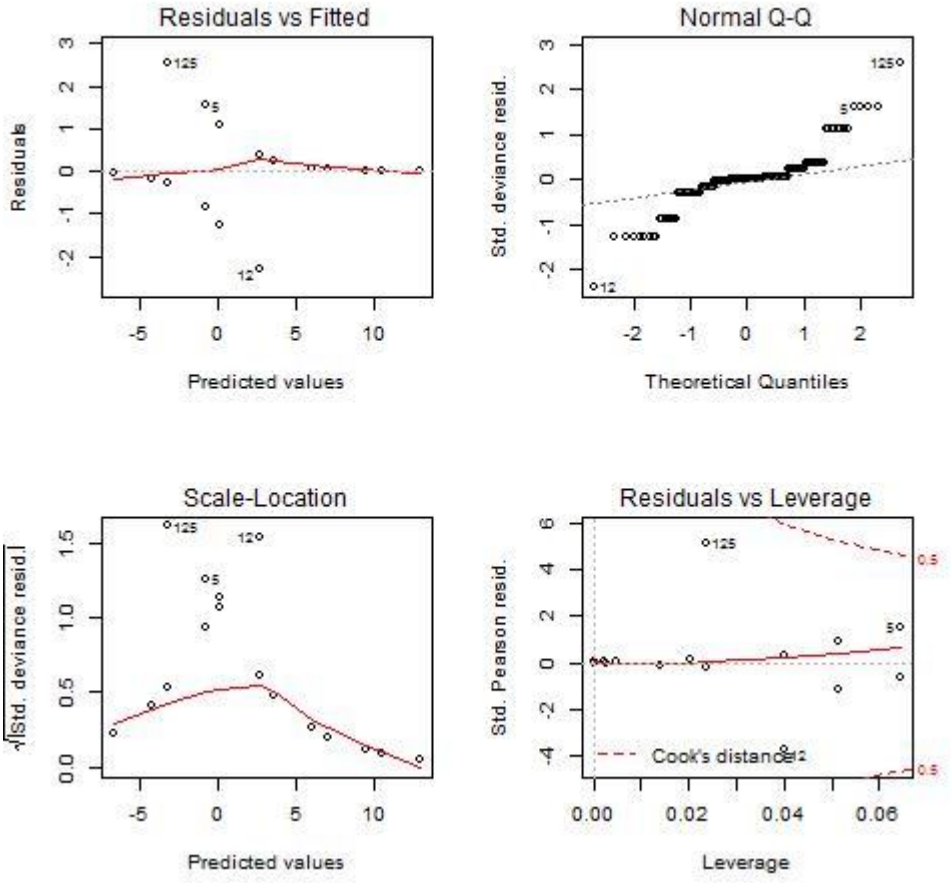

Escherichia coli 1614- 25 mM Lactic Acid
50%
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

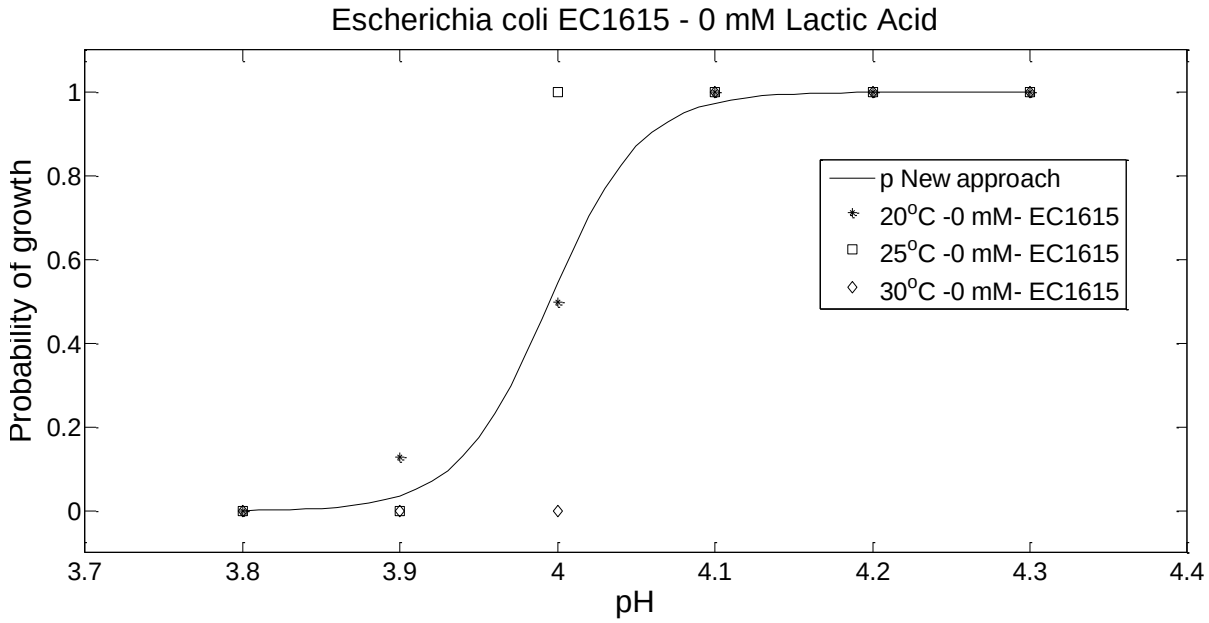
85. *E. coli* EC1615 CNF2,B88-612-1 (Prof. J. Mainil (Ulg, Liège, Belgium))

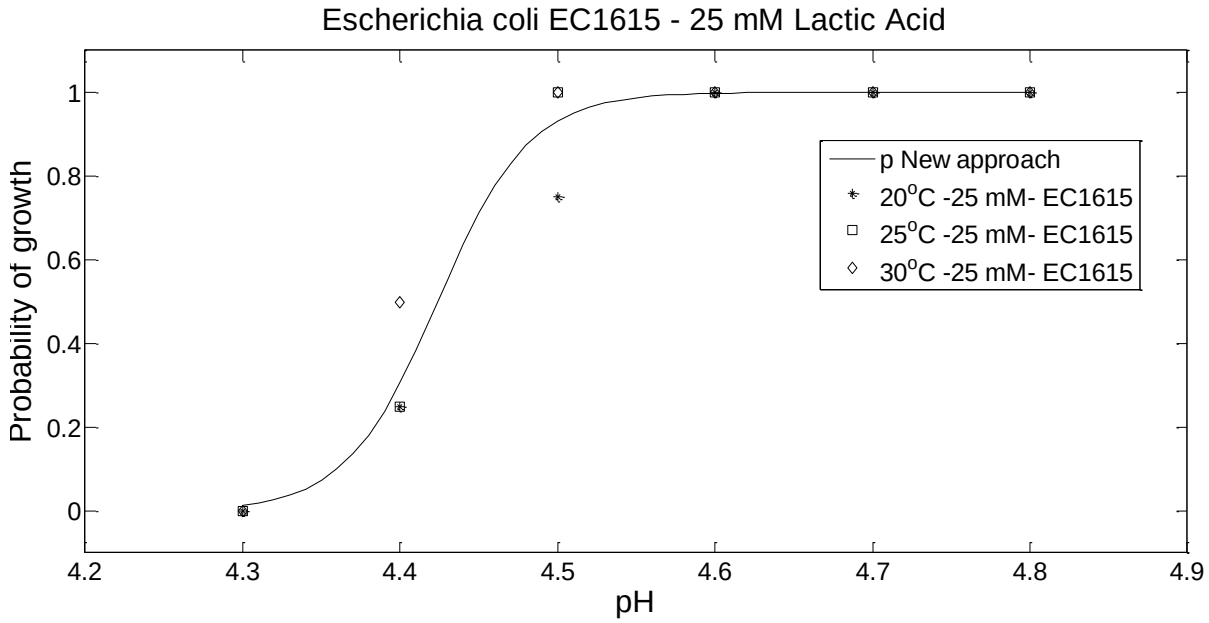
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-137.50	28.99	-4.74	0.00	-210.56	-91.62	0.00	0.00	0.00
pH	34.42	7.26	4.74	0.00	22.93	52.70	8.89E+14	9.08E+09	7.69E+22
LA	-0.59	0.13	-4.67	0.00	-0.90	-0.39	0.55	0.41	0.68

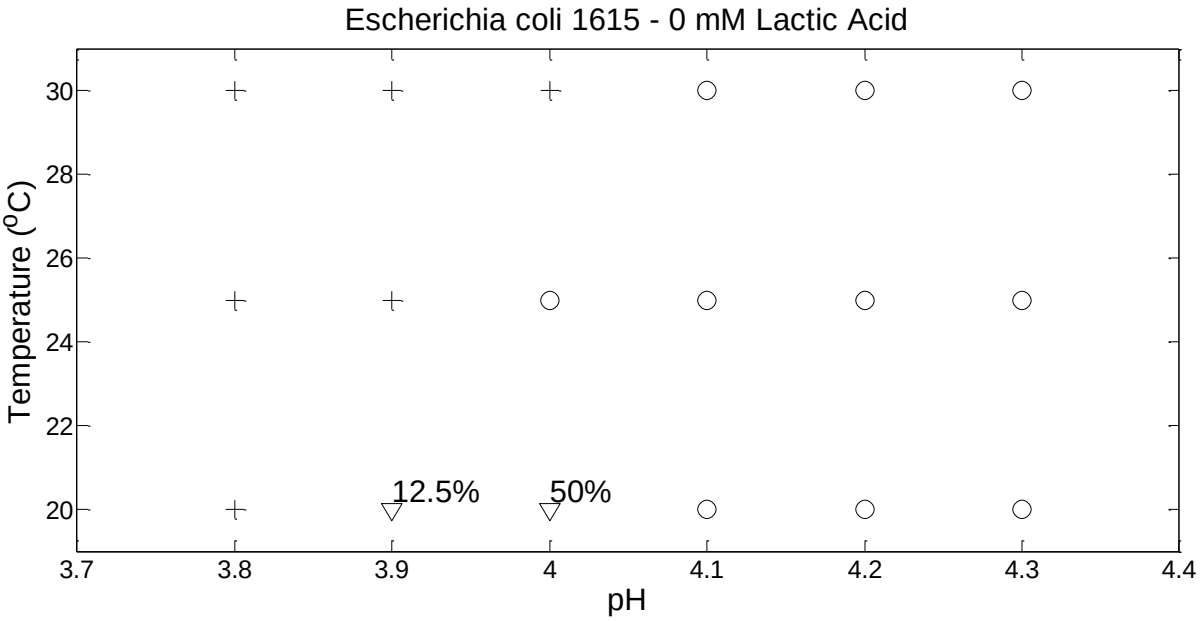
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	207.88	
pH	1	59.94	154	147.93	0.00
LA	1	94.56	153	53.37	0.00

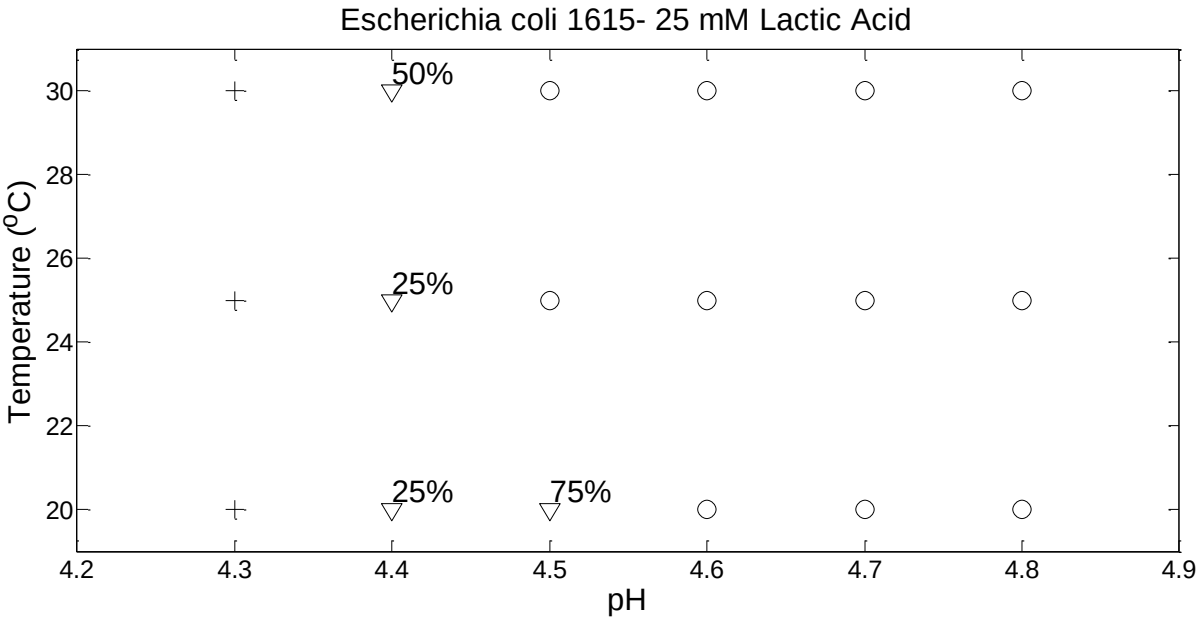
AIC	59.37
Likelihood Ratio	2.81E-34
Log-Likelihood	-26.69




Escherichia coli EC1615 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1615
25°C -0 mM- EC1615
30°C -0 mM- EC1615
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1615 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1615
25°C -25 mM- EC1615
30°C -25 mM- EC1615
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli 1615 - 0 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
12.5%
50%
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

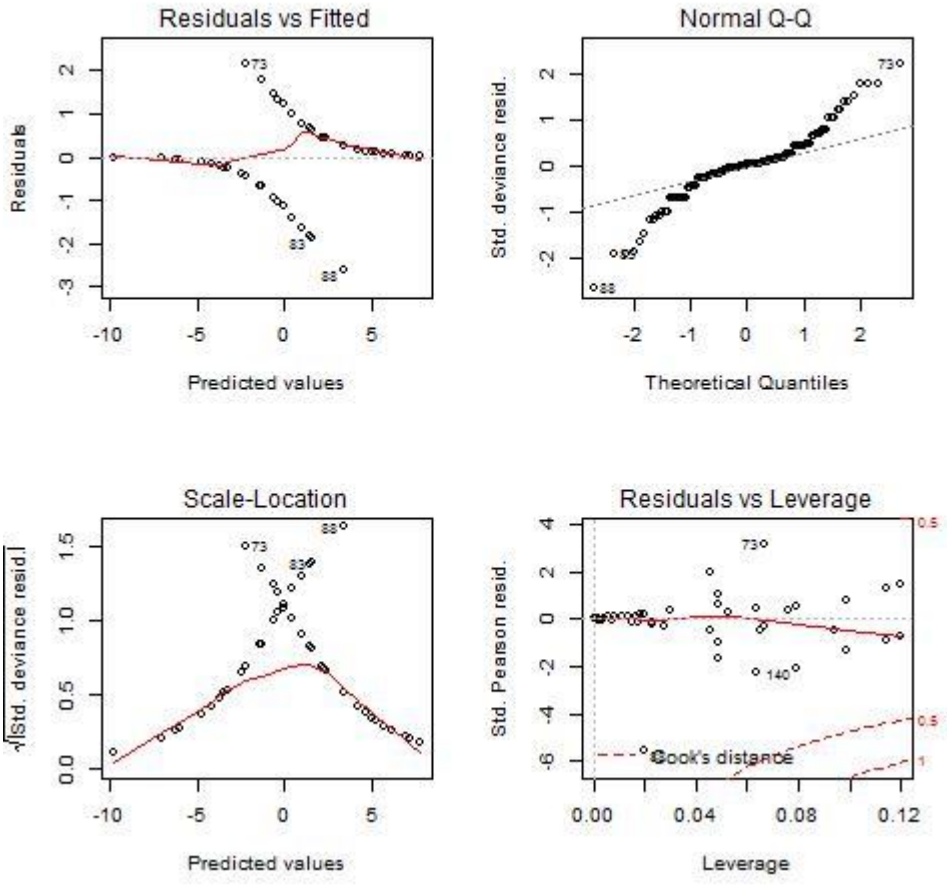

Escherichia coli 1615- 25 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
50%
25%
25%
75%
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

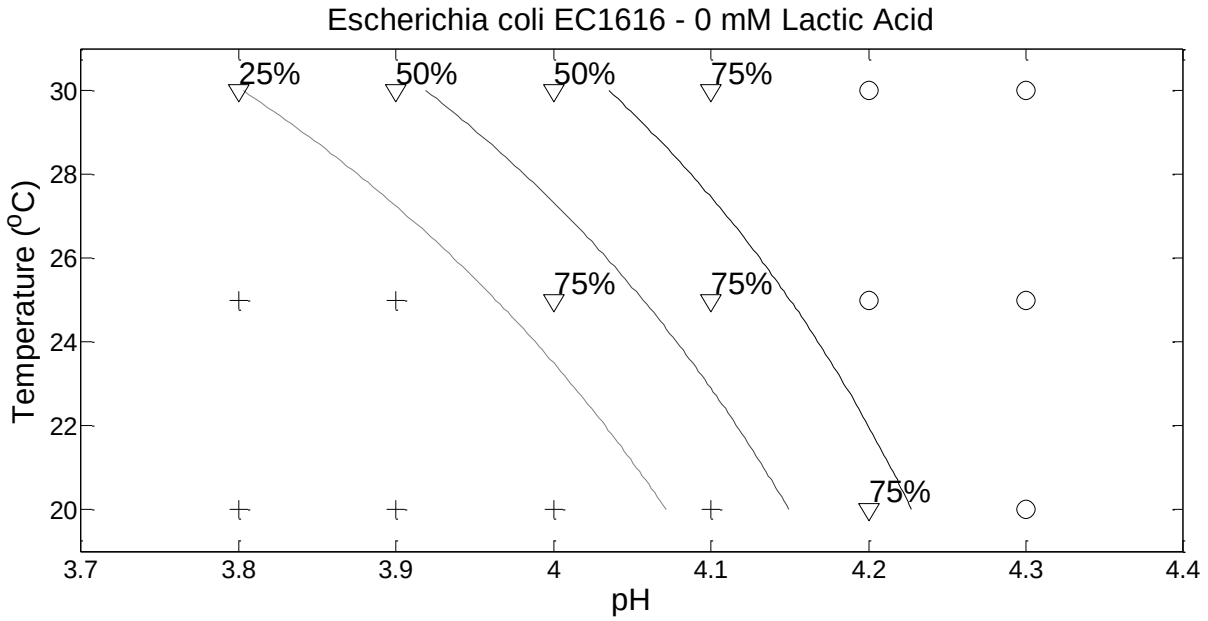
86. *E. coli* EC1616 CNF2,B177 (Prof. J. Mainil (Ulg, Liège, Belgium))

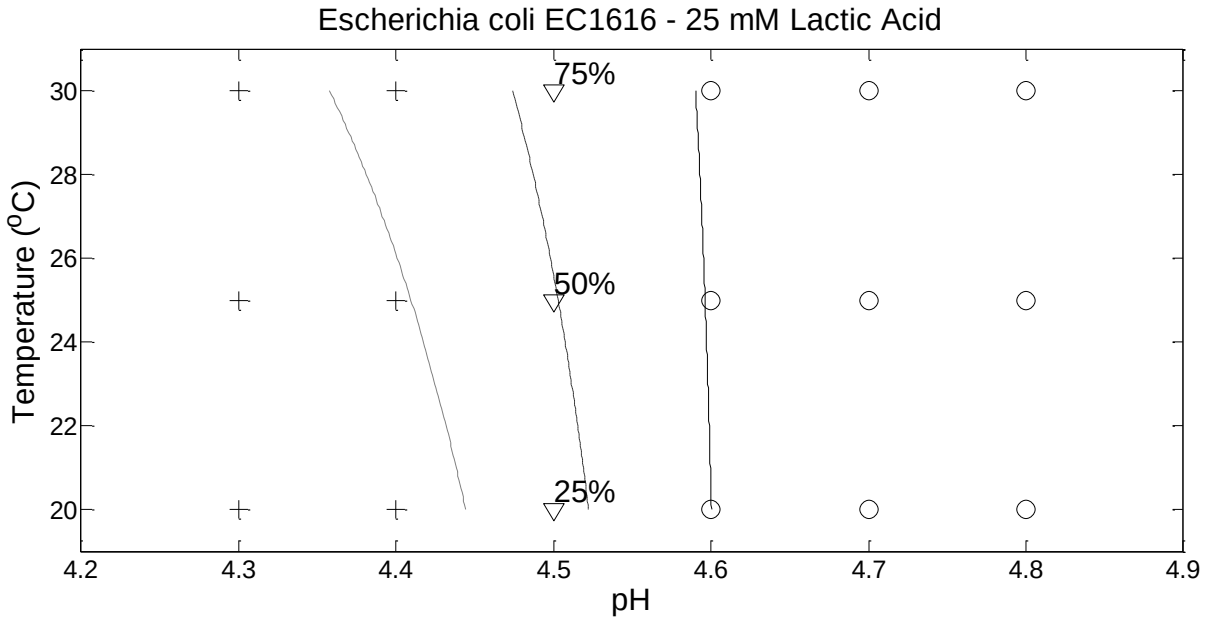
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-202.16	48.91	-4.13	0.00	-312.95	-118.18	0.00	0.00	0.00
pH	46.62	11.35	4.11	0.00	27.10	72.29	1.77E+20	5.86E+11	2.49E+31
LA	-0.42	0.08	-5.40	0.00	-0.60	-0.29	0.66	0.55	0.75
Temp	4.27	1.52	2.81	0.00	1.54	7.59	71.45	4.65	1976.02
pH:Temp	-0.92	0.35	-2.65	0.01	-1.68	-0.29	0.40	0.19	0.75

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.24	
pH	1	49.40	154	166.83	0.00
LA	1	73.12	153	93.71	0.00
Temp	1	16.93	152	76.78	0.00
pH:Temp	1	8.64	151	68.14	0.00

AIC	78.14
Likelihood Ratio	5.21E-31
Log-Likelihood	-34.07




Escherichia coli EC1616 - 0 mM Lactic Acid
25%
50%
50%
75%
75%
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

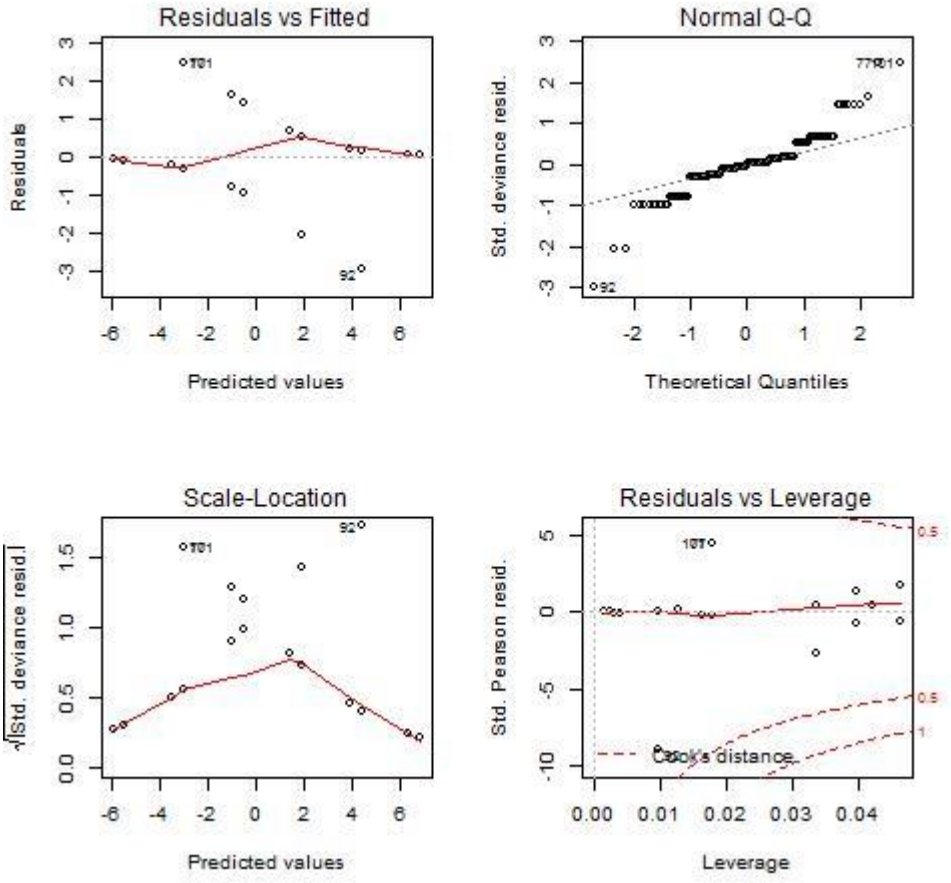

Escherichia coli EC1616 - 25 mM Lactic Acid
75%
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

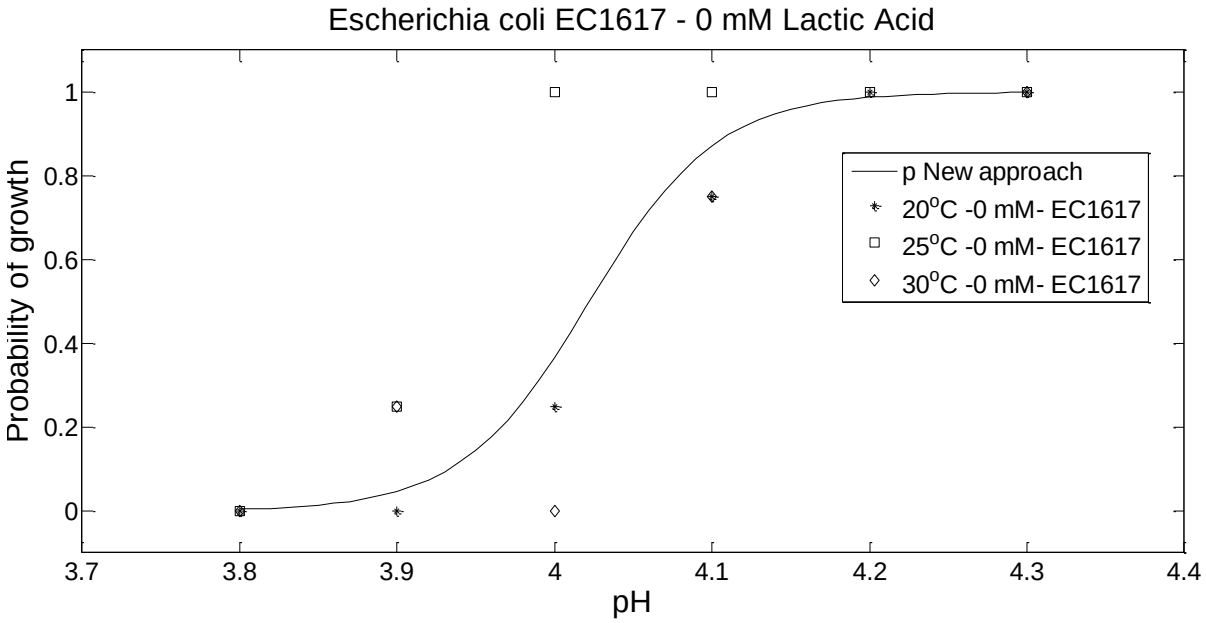
87. *E. coli* EC1617 CNF2,88-388-2 (Prof. J. Mainil (Ulg, Liège, Belgium))

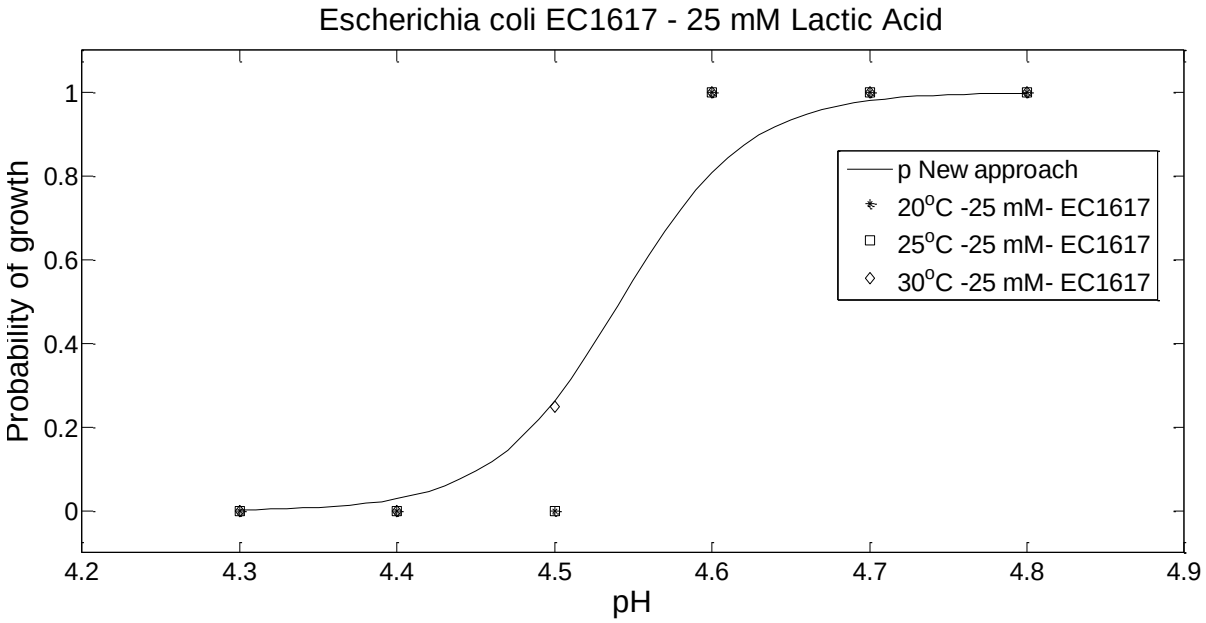
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-99.17	17.07	-5.81	0.00	-138.45	-70.54	0.00	0.00	0.00
pH	24.66	4.25	5.80	0.00	17.53	34.44	5.10E+10	4.10E+07	9.10E+14
LA	-0.51	0.09	-5.51	0.00	-0.73	-0.36	0.60	0.48	0.70

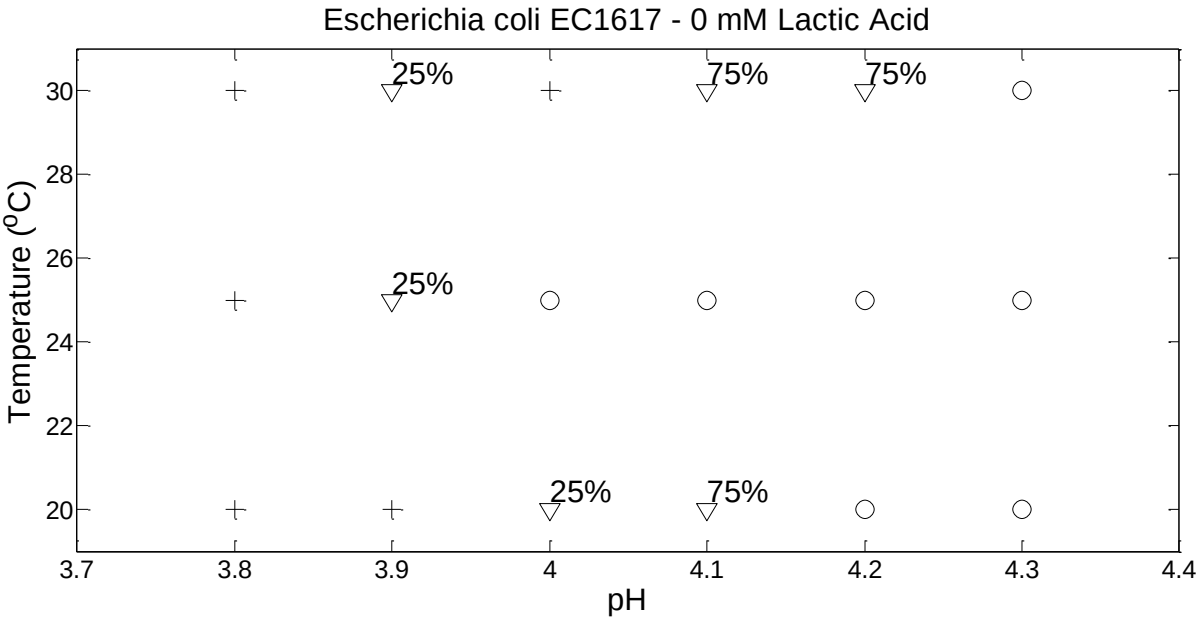
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.26	
pH	1	36.64	154	179.62	0.00
LA	1	108.87	153	70.76	0.00

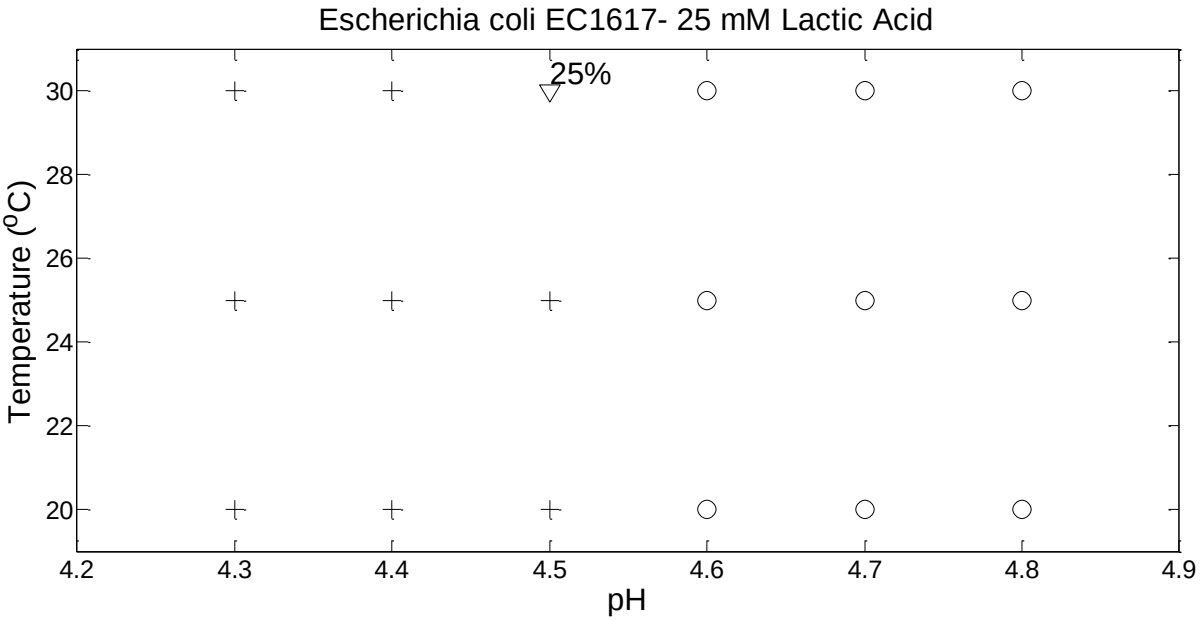
AIC	76.76
Likelihood Ratio	2.54E-32
Log-Likelihood	-35.38




Escherichia coli EC1617 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1617
25°C -0 mM- EC1617
30°C -0 mM- EC1617
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1617 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1617
25°C -25 mM- EC1617
30°C -25 mM- EC1617
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1617 - 0 mM Lactic Acid
25%
75%
75%
25%
25%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

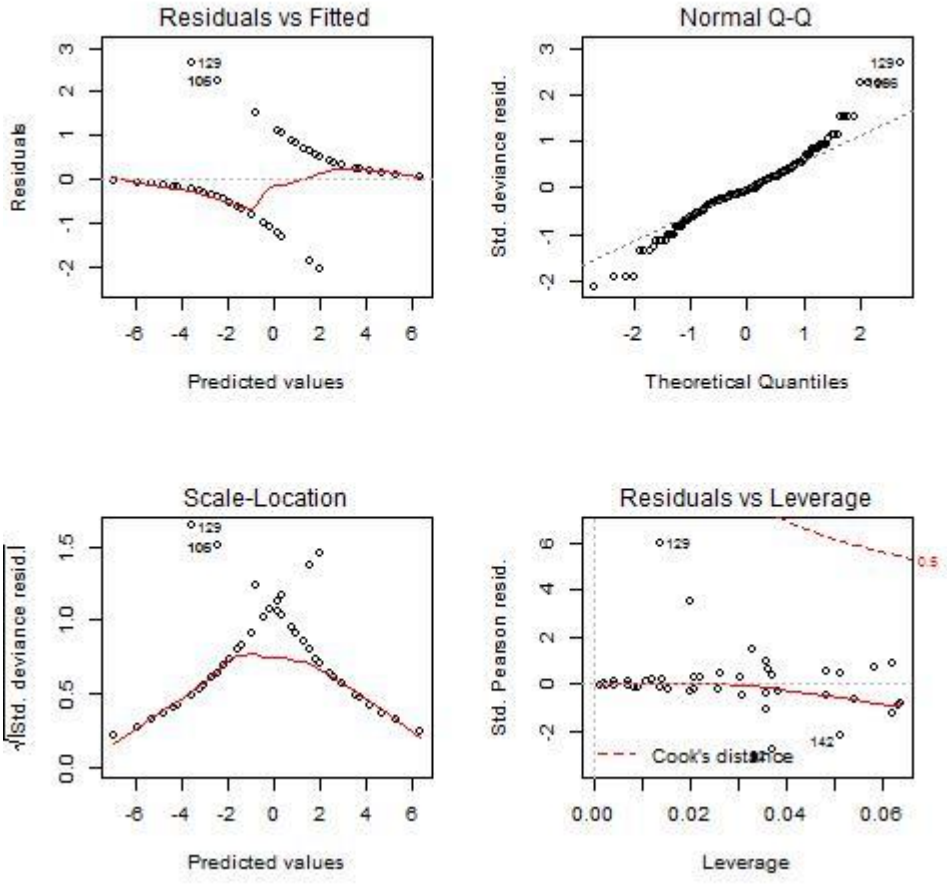

Escherichia coli EC1617- 25 mM Lactic Acid
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

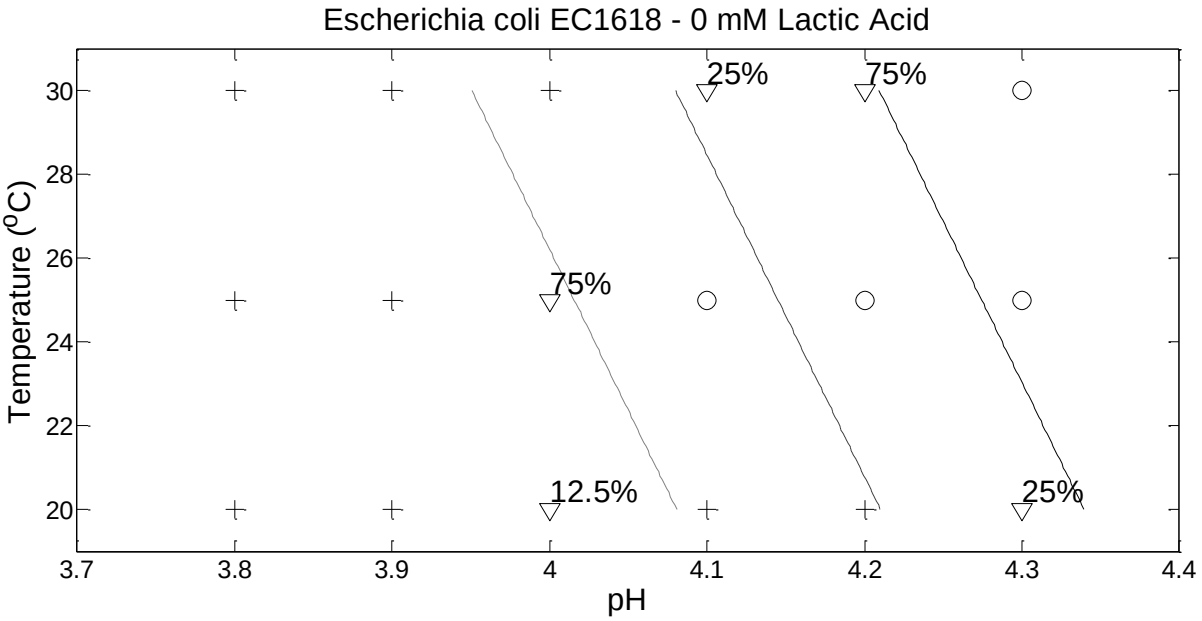
88. *E. coli* EC1618 CNF2, 33KH89 (Prof. J. Mainil (Ulg, Liège, Belgium))

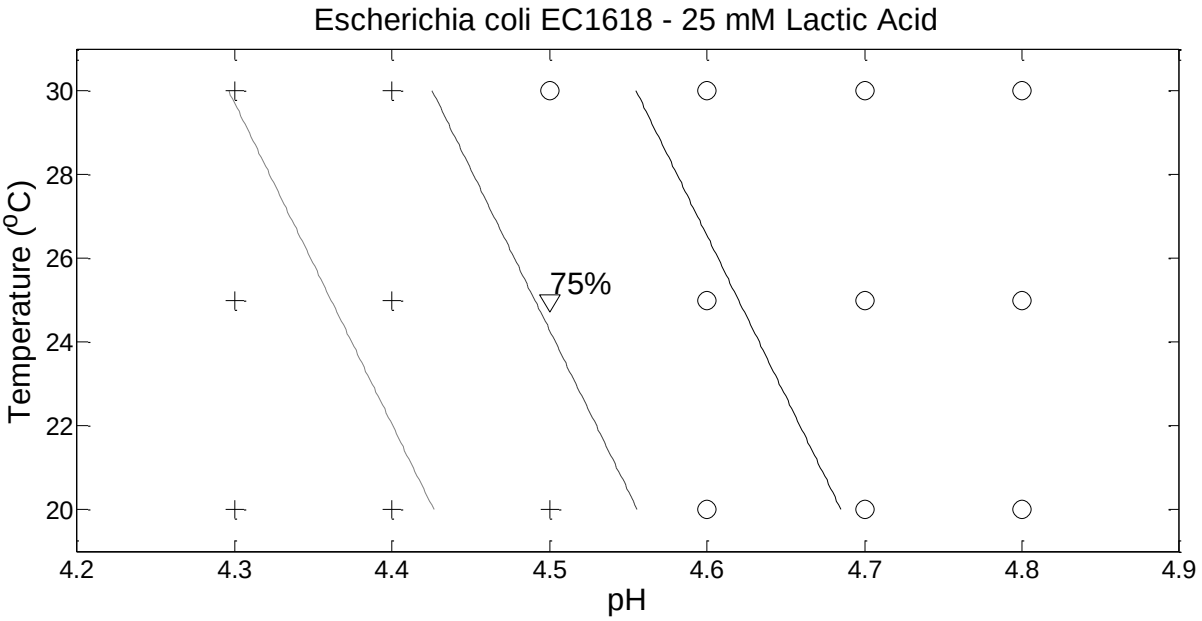
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-75.93	12.22	-6.22	0.00	-103.27	-54.82	0.00	0.00	0.00
pH	16.99	2.74	6.19	0.00	12.22	23.11	2.38E+07	2.03E+05	1.09E+10
LA	-0.23	0.05	-5.18	0.00	-0.33	-0.15	0.79	0.72	0.86
Temp	0.22	0.07	3.05	0.00	0.09	0.37	1.25	1.09	1.45

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	213.69	
pH	1	70.69	154	143.00	0.00
LA	1	42.69	153	100.30	0.00
Temp	1	10.97	152	89.33	0.00

AIC	97.33
Likelihood Ratio	8.89E-27
Log-Likelihood	-44.67




Escherichia coli EC1618 - 0 mM Lactic Acid
25%
75%
75%
12.5%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

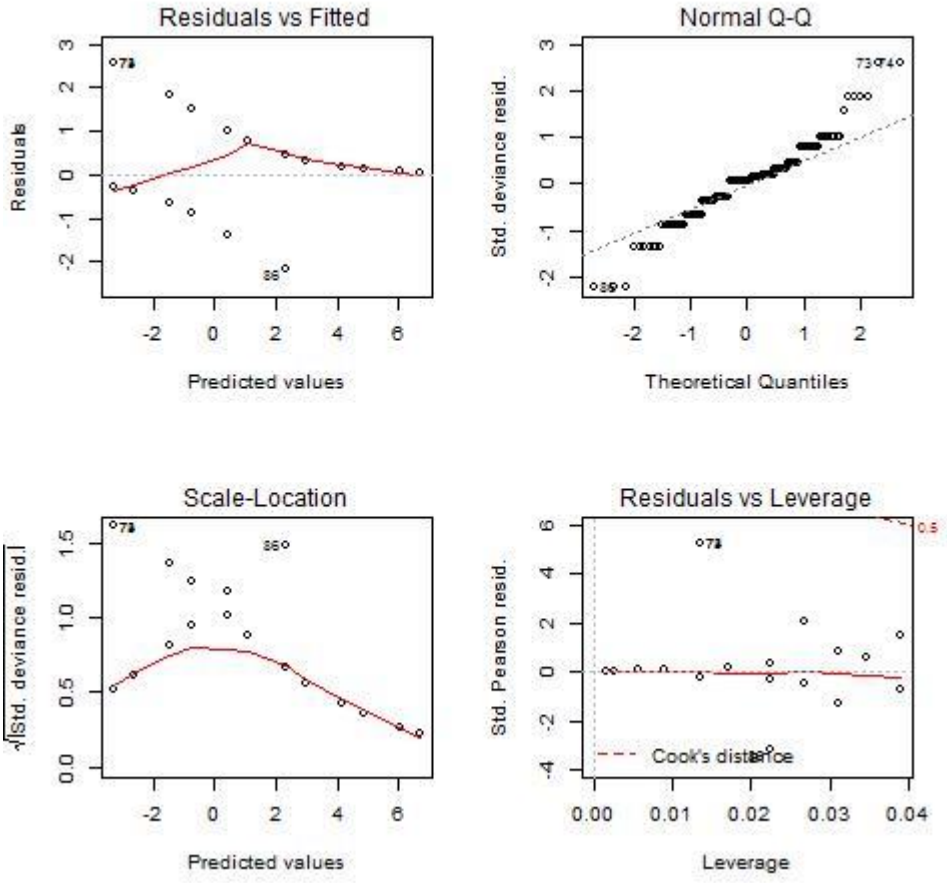

Escherichia coli EC1618 - 25 mM Lactic Acid
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

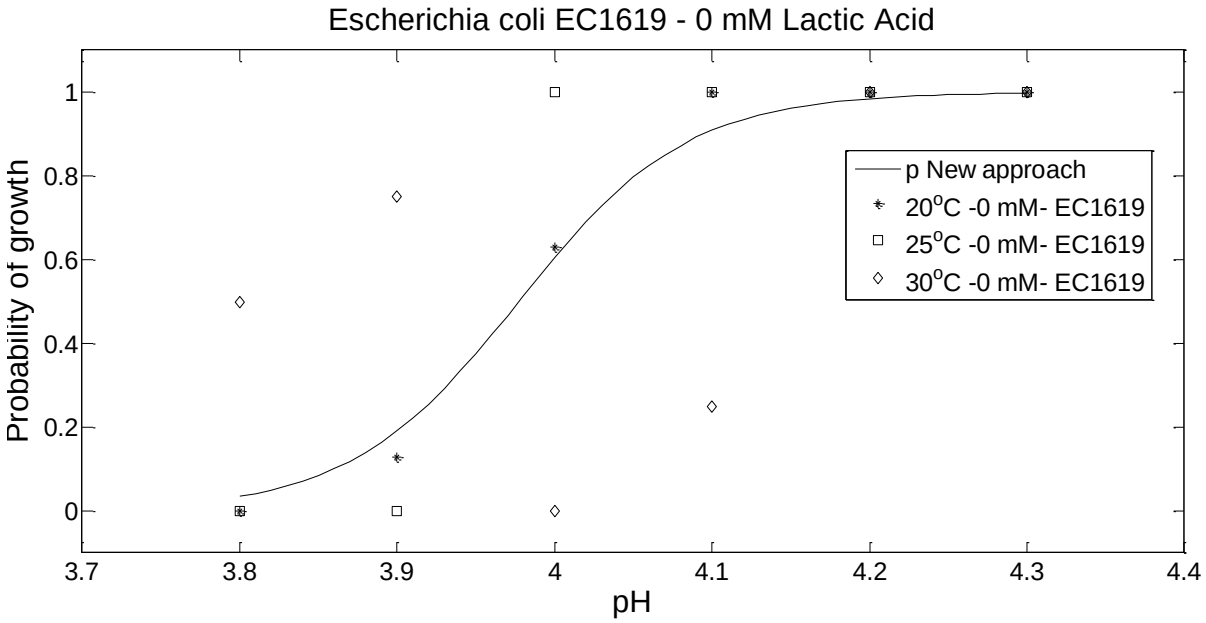
89. *E. coli* EC1619 CNF2,1404 (Prof. J. Mainil (Ulg, Liège, Belgium))

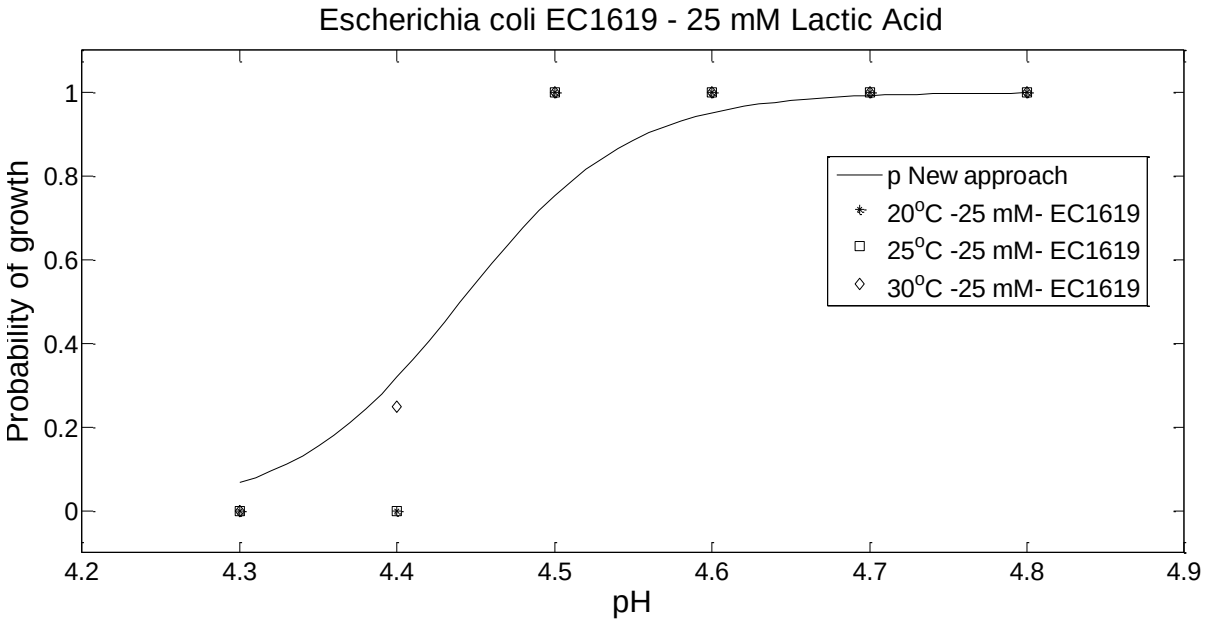
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-74.36	12.01	-6.19	0.00	-101.14	-53.57	0.00	0.00	0.00
pH	18.70	3.02	6.19	0.00	13.47	25.43	1.32E+08	7.07E+05	1.11E+11
LA	-0.35	0.06	-5.68	0.00	-0.48	-0.24	0.71	0.62	0.79

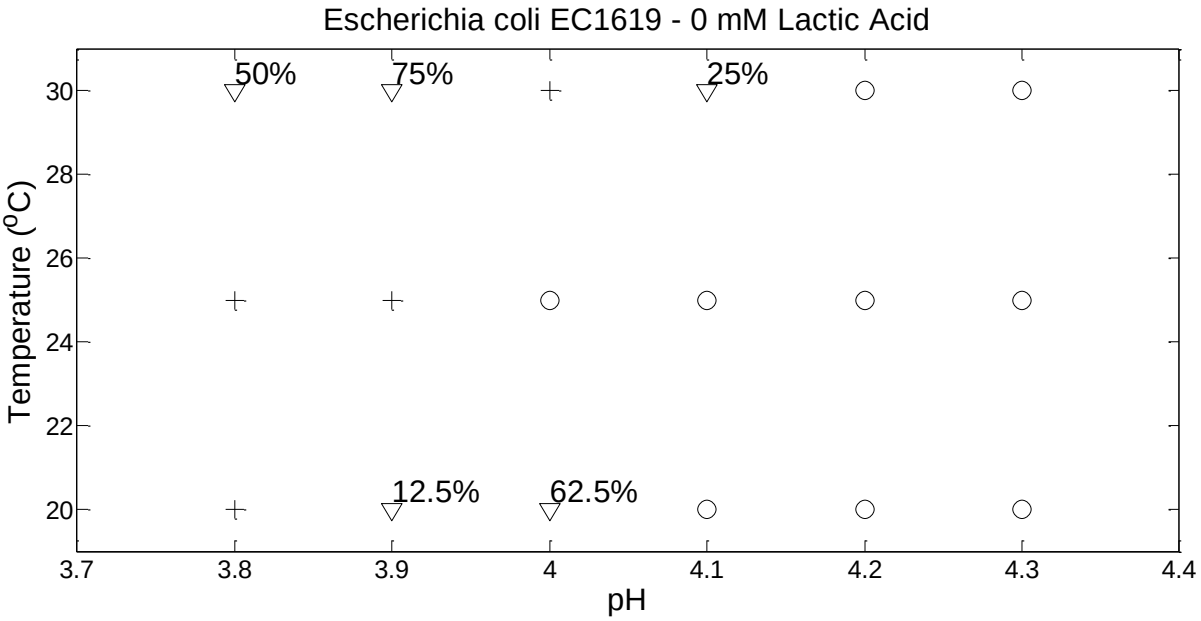
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	206.91	
pH	1	42.17	154	164.75	0.00
LA	1	72.82	153	91.92	0.00

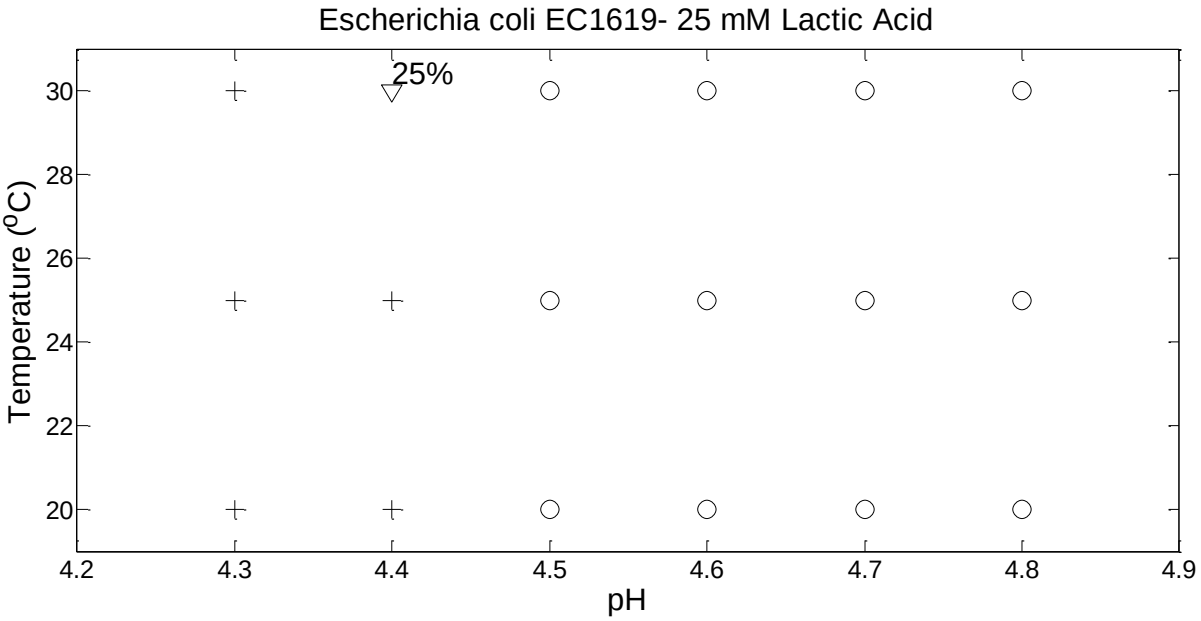
AIC	97.92
Likelihood Ratio	1.07E-25
Log-Likelihood	-45.96




Escherichia coli EC1619 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1619
25°C -0 mM- EC1619
30°C -0 mM- EC1619
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1619 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1619
25°C -25 mM- EC1619
30°C -25 mM- EC1619
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1619 - 0 mM Lactic Acid
50%
75%
25%
12.5%
62.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

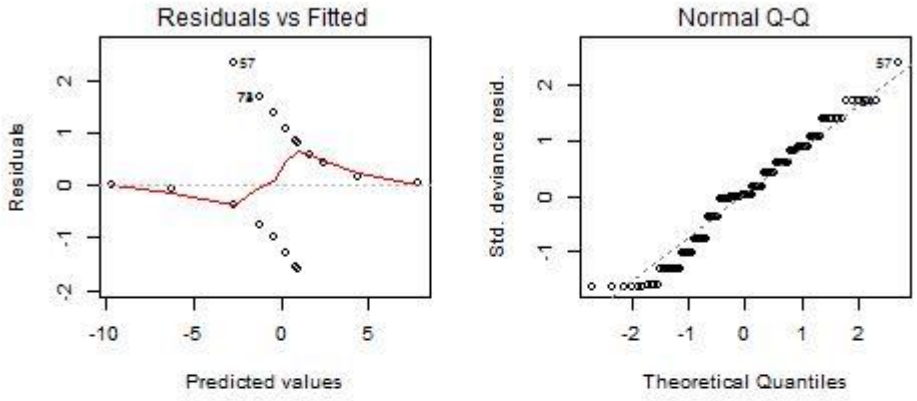

Escherichia coli EC1619- 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

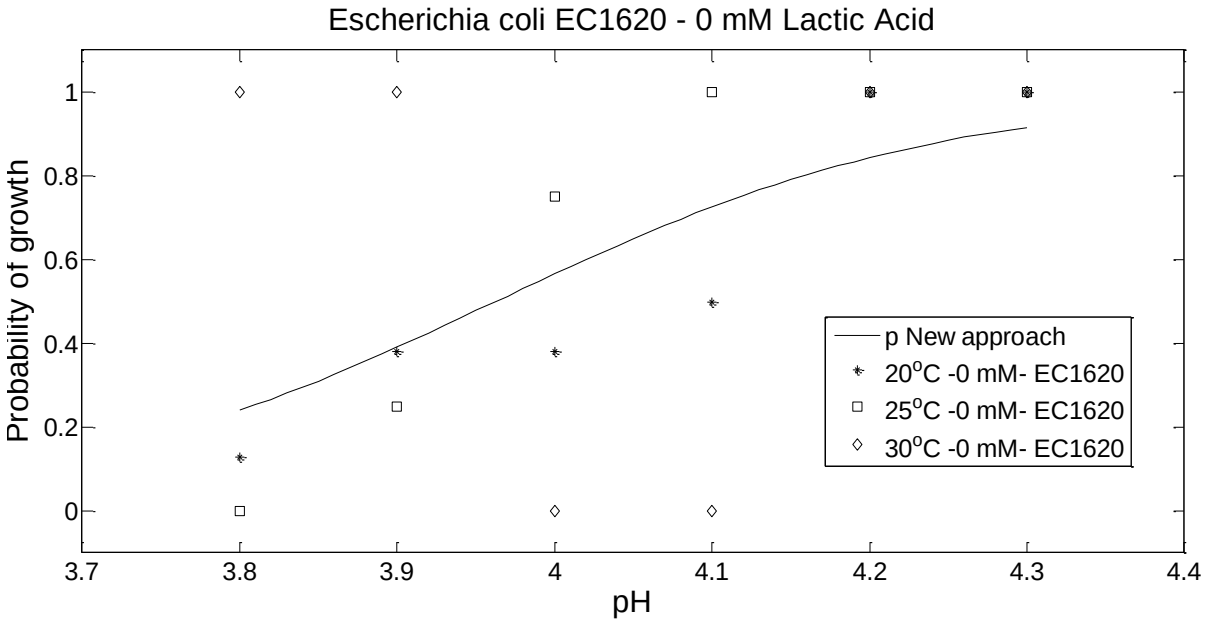
90. *E. coli* EC1620 CNF2,222KH89 (Prof. J. Mainil (Ulg, Liège, Belgium))

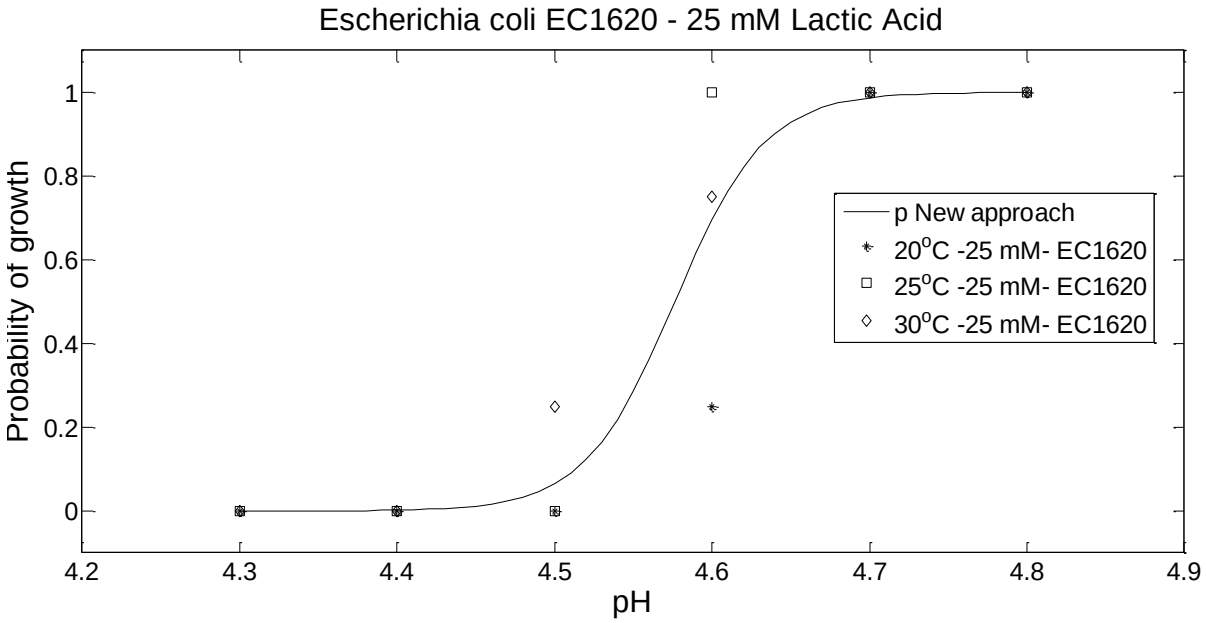
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-28.09	7.02	-4.00	0.00	-43.07	-15.27	0.00	0.00	0.00
pH	7.09	1.76	4.03	0.00	3.89	10.85	1.20E+03	4.87E+01	5.13E+04
LA	-5.27	1.95	-2.70	0.01	-10.69	-2.38	0.01	0.00	0.09
pH:LA	1.11	0.43	2.61	0.01	0.48	2.30	3.05	1.61	9.93

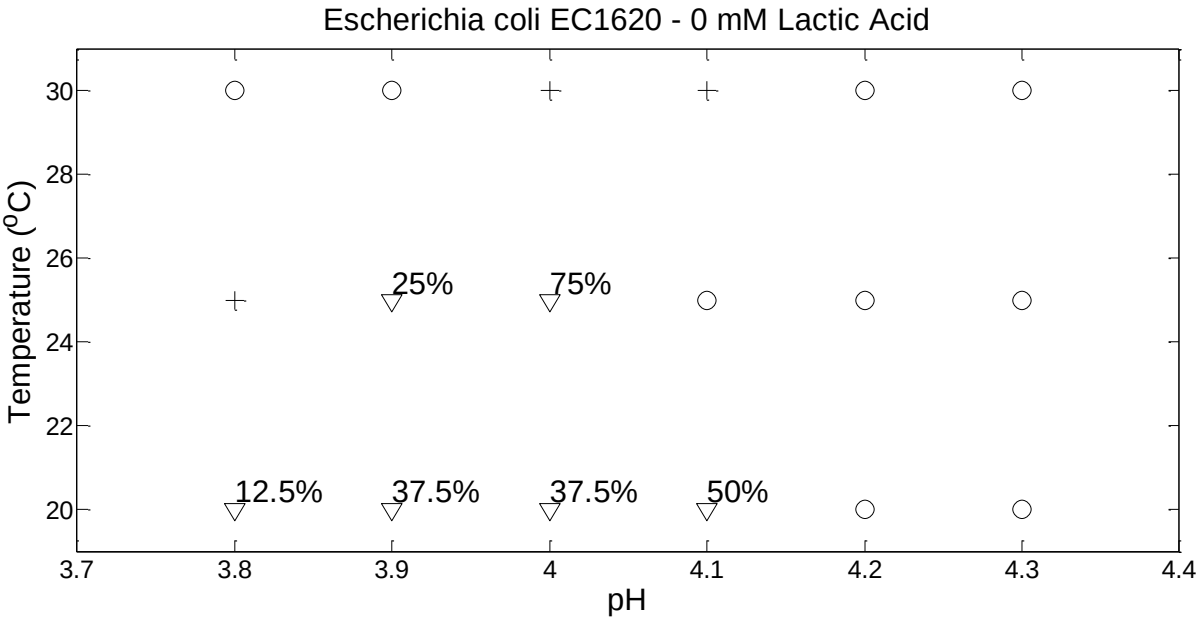
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	215.85	
pH	1	9.87	154	205.98	0.00
LA	1	71.71	153	134.27	0.00
pH:LA	1	19.26	152	115.01	0.00

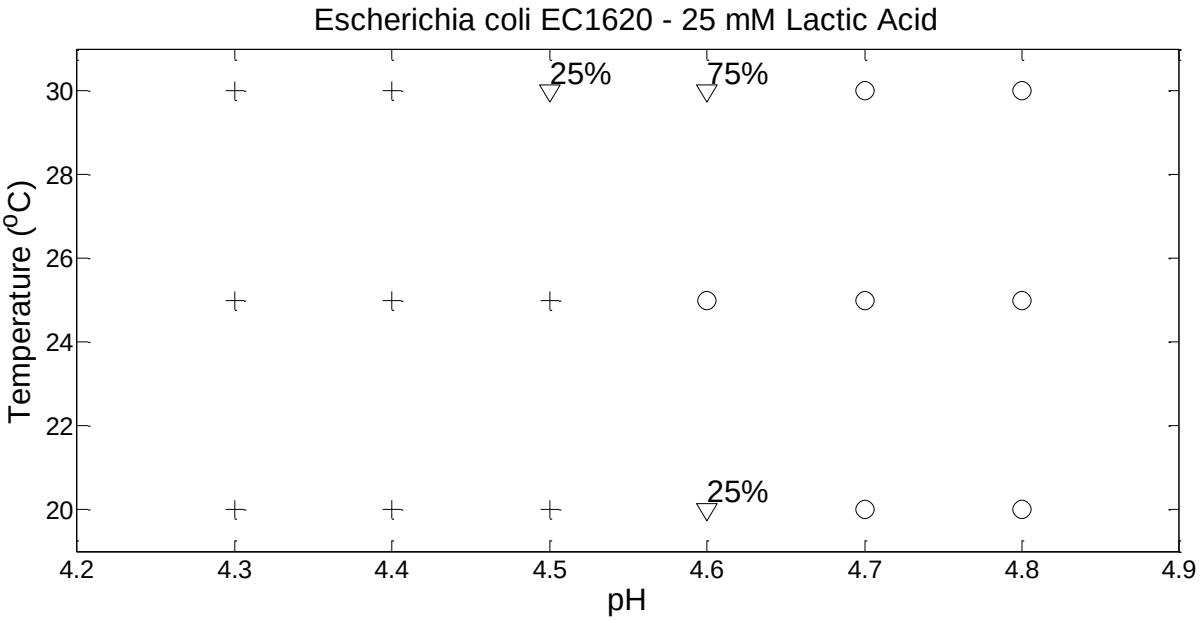
AIC	123.01
Likelihood Ratio	1.02E-21
Log-Likelihood	-57.50




Escherichia coli EC1620 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1620
25°C -0 mM- EC1620
30°C -0 mM- EC1620


Escherichia coli EC1620 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1620
25°C -25 mM- EC1620
30°C -25 mM- EC1620


Escherichia coli EC1620 - 0 mM Lactic Acid
Temperature (°C)
pH
25%
75%
12.5%
37.5%
37.5%
50%

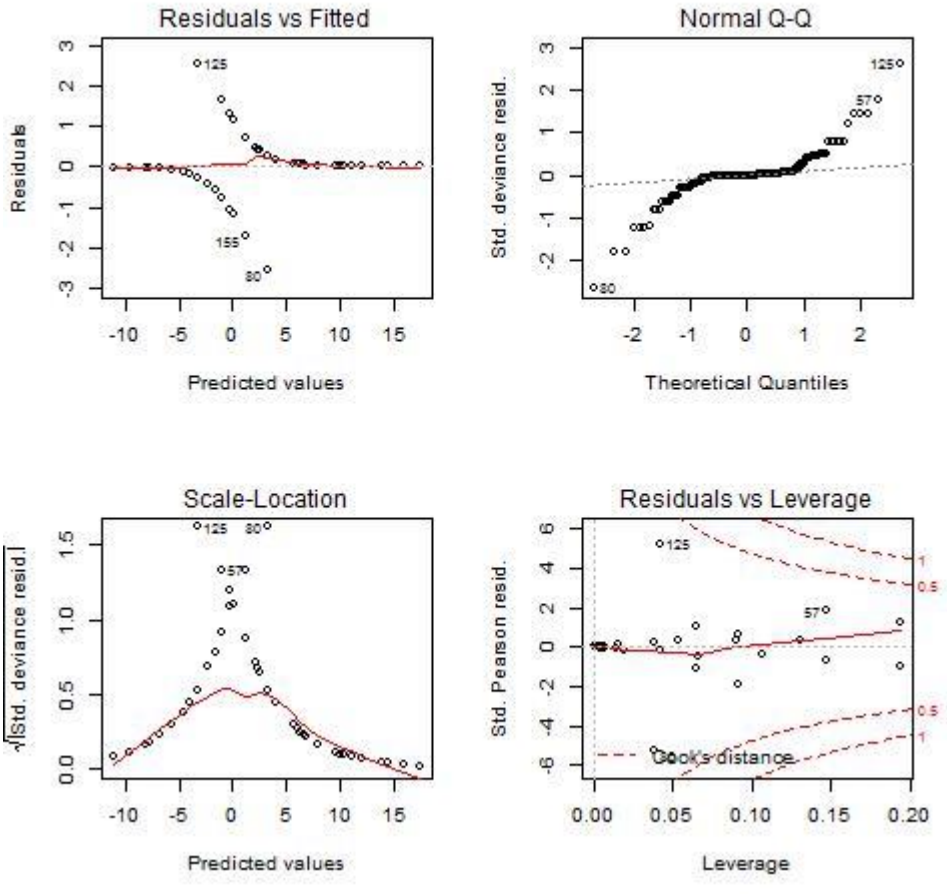

Escherichia coli EC1620 - 25 mM Lactic Acid
Temperature (°C)
pH
25%
75%
25%

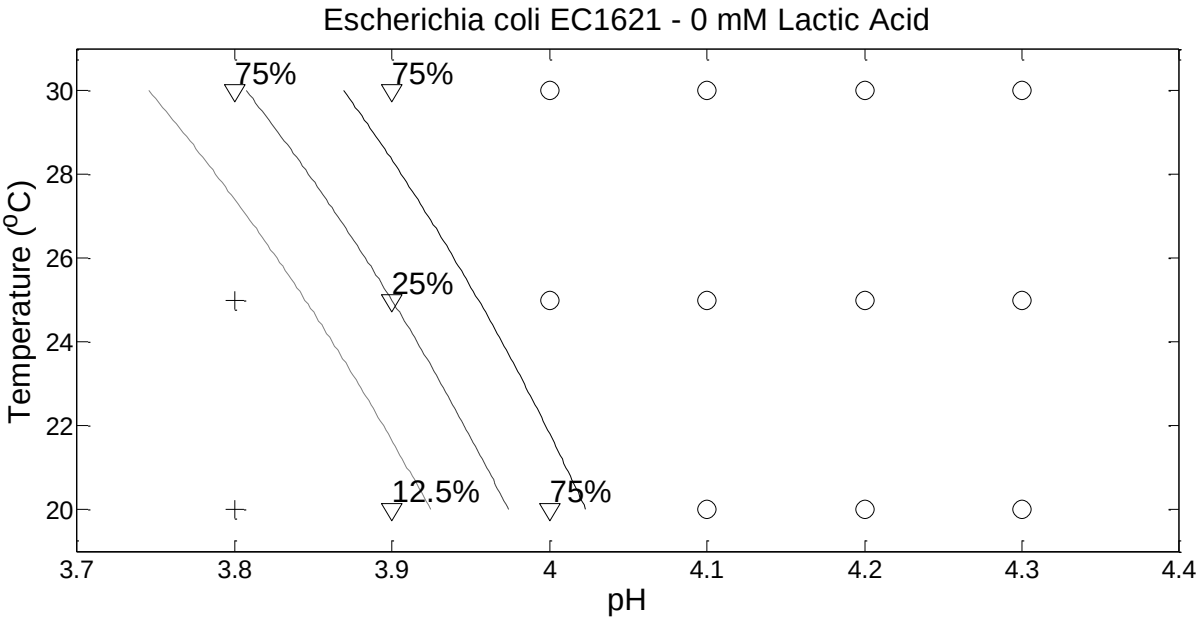
91. *E. coli* EC1621 Bovine NTEC II, B64 (Prof. J. Mainil (Ulg, Liège, Belgium))

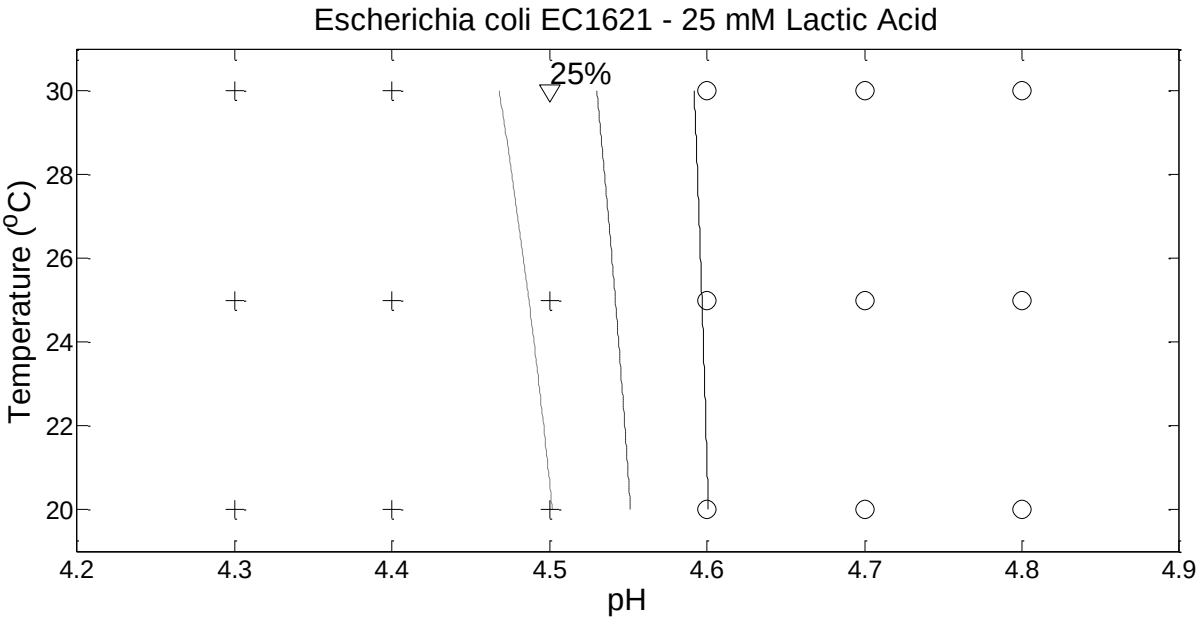
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-259.12	64.00	-4.05	0.00	-416.86	-155.90	0.00	0.00	0.00
pH	62.24	15.33	4.06	0.00	37.50	100.02	1.07E+27	1.93E+16	2.74E+43
LA	-1.03	0.22	-4.62	0.00	-1.57	-0.67	0.36	0.21	0.51
Temp	4.13	1.53	2.71	0.01	1.49	7.72	62.25	4.46	2257.94
pH:Temp	-0.89	0.35	-2.52	0.01	-1.72	-0.28	0.41	0.18	0.76

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	208.79	
pH	1	11.12	154	197.68	0.00
LA	1	130.43	153	67.25	0.00
Temp	1	14.43	152	52.81	0.00
pH:Temp	1	8.68	151	44.13	0.00

AIC	54.13
Likelihood Ratio	1.46E-34
Log-Likelihood	-22.07




Escherichia coli EC1621 - 0 mM Lactic Acid
75%
75%
25%
12.5%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

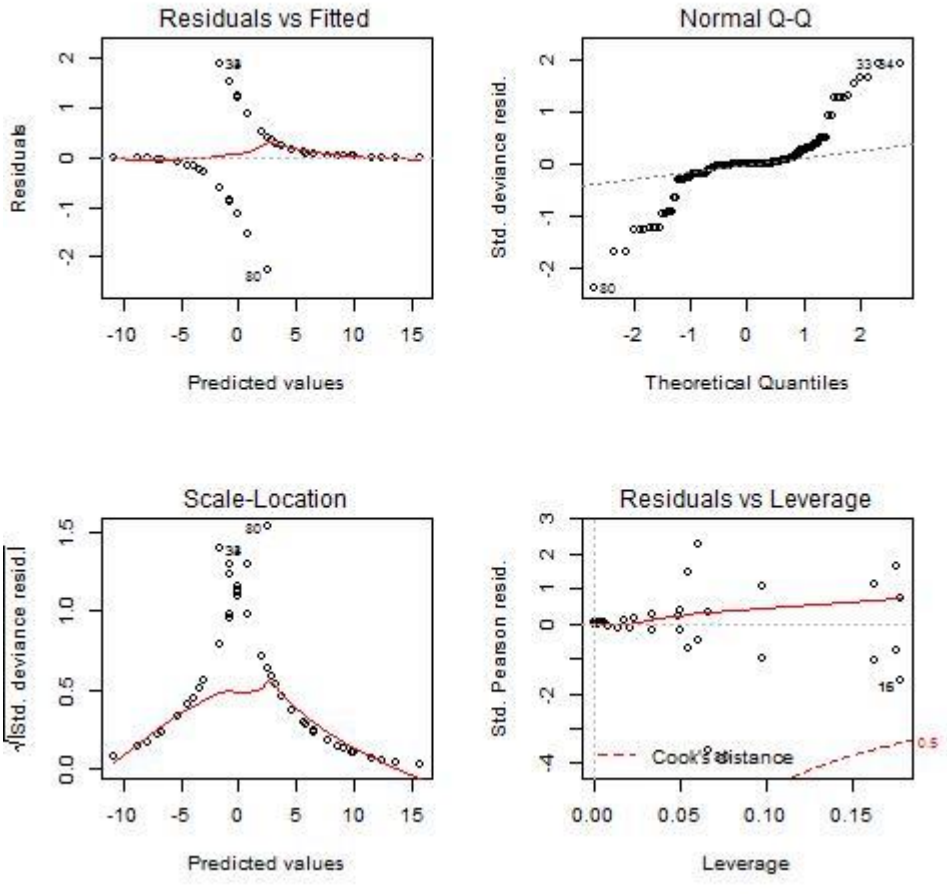

Escherichia coli EC1621 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

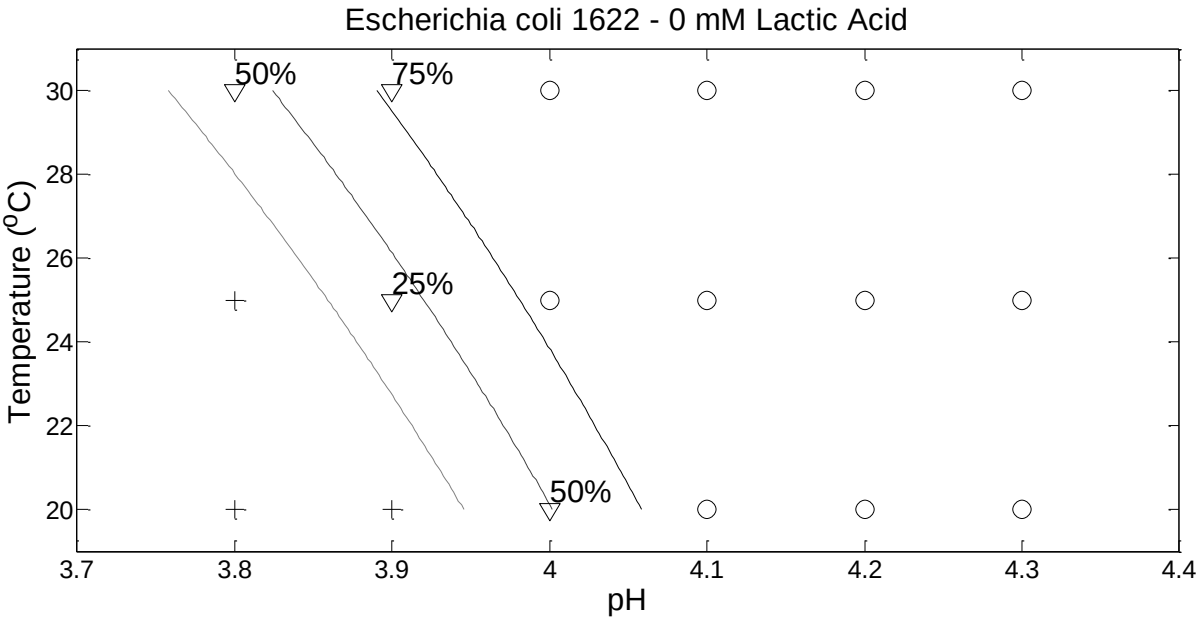
92. *E. coli* EC1622 Bovine NTEC II, B65 (Prof. J. Mainil (Ulg, Liège, Belgium))

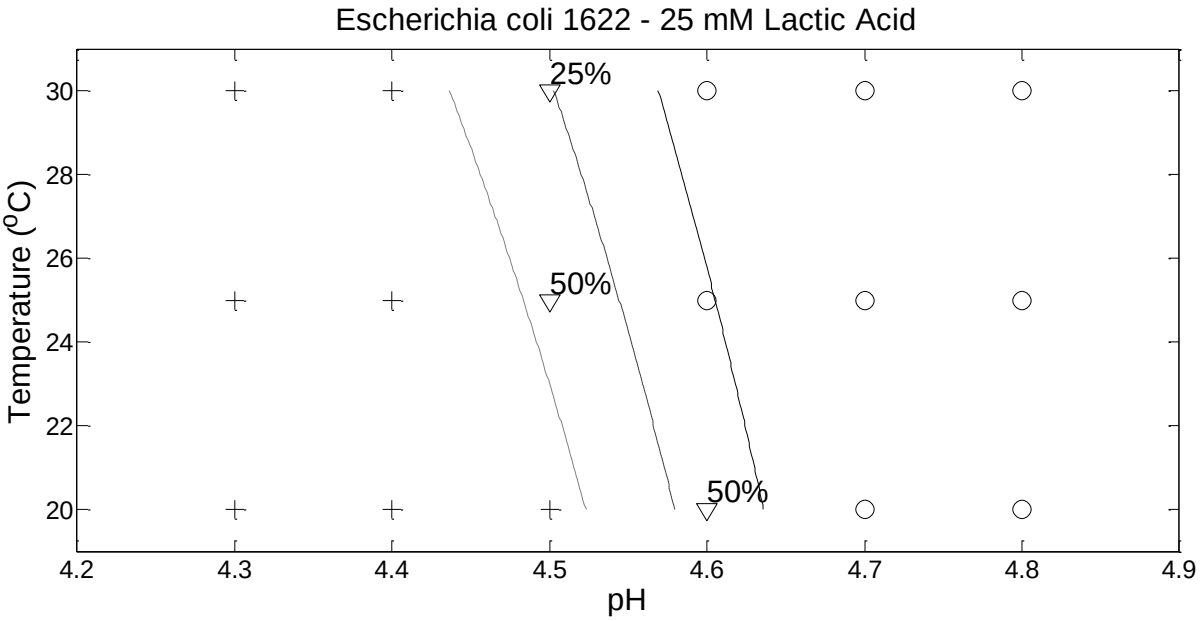
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-214.19	53.49	-4.00	0.00	-341.89	-125.93	0.00	0.00	0.00
pH	50.57	12.66	3.99	0.00	29.65	80.74	9.20E+21	7.54E+12	1.16E+35
LA	-0.90	0.20	-4.45	0.00	-1.41	-0.58	0.41	0.24	0.56
Temp	2.91	1.28	2.28	0.02	0.56	5.66	18.40	1.74	286.14
pH:Temp	-0.58	0.29	-1.97	0.05	-1.21	-0.03	0.56	0.30	0.97

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	211.91	
pH	1	15.53	154	196.38	0.00
LA	1	119.13	153	77.25	0.00
Temp	1	22.87	152	54.39	0.00
pH:Temp	1	4.29	151	50.10	0.04

AIC	60.10
Likelihood Ratio	5.97E-34
Log-Likelihood	-25.05




Escherichia coli 1622 - 0 mM Lactic Acid
50%
75%
25%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

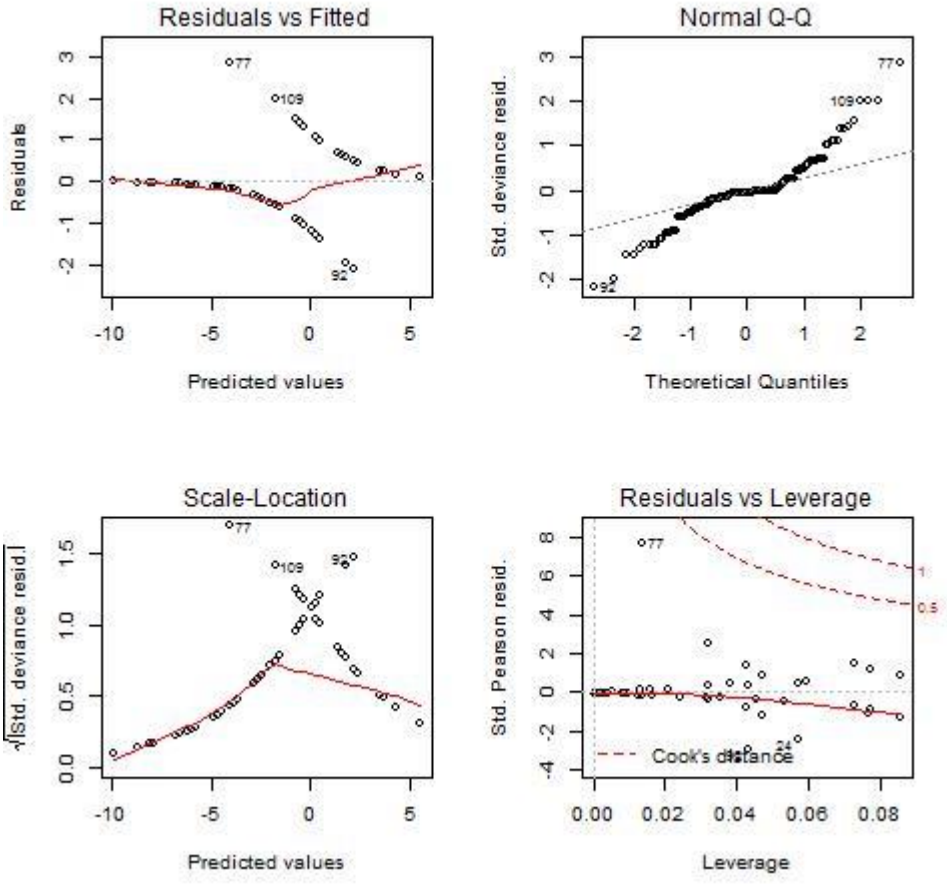

Escherichia coli 1622 - 25 mM Lactic Acid
25%
50%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

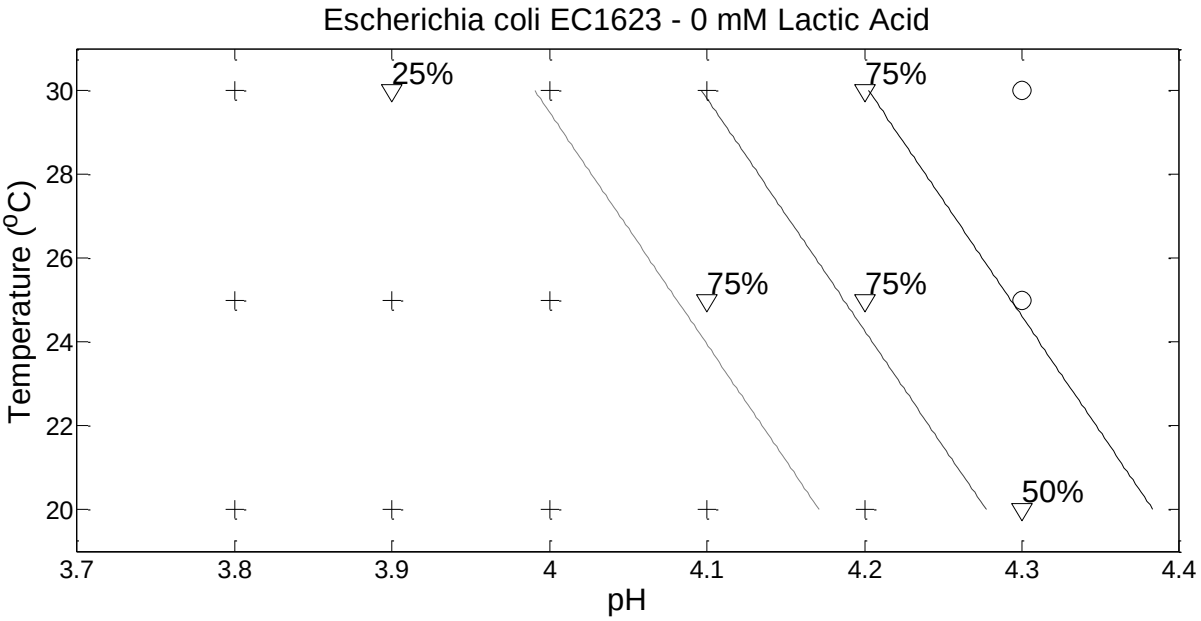
93. *E. coli* EC1623 Bovine NTEC II, B56 (Prof. J. Mainil (Ulg, Liège, Belgium))

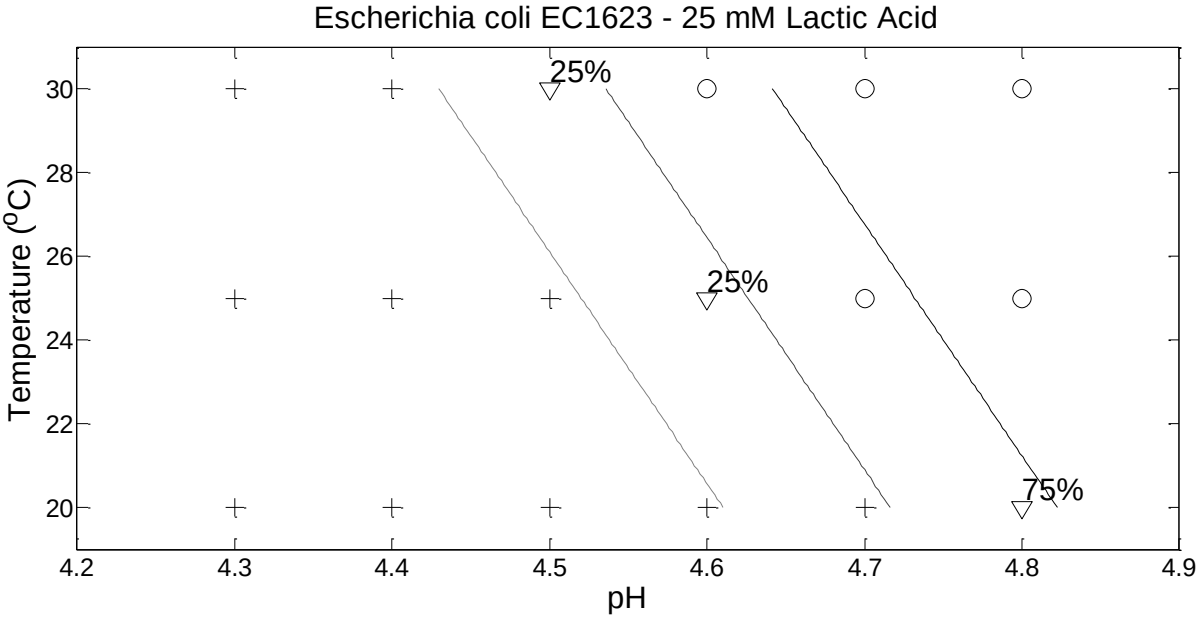
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-96.13	17.26	-5.57	0.00	-135.69	-67.07	0.00	0.00	0.00
pH	20.73	3.75	5.53	0.00	14.39	29.29	1.00E+09	1.78E+06	5.23E+12
LA	-0.36	0.07	-5.12	0.00	-0.52	-0.24	0.69	0.59	0.78
Temp	0.37	0.10	3.91	0.00	0.20	0.58	1.45	1.23	1.79

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	190.93	
pH	1	42.23	154	148.70	0.00
LA	1	53.99	153	94.71	0.00
Temp	1	23.05	152	71.65	0.00

AIC	79.65
Likelihood Ratio	1.11E-25
Log-Likelihood	-35.83




Escherichia coli EC1623 - 0 mM Lactic Acid
25%
75%
75%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

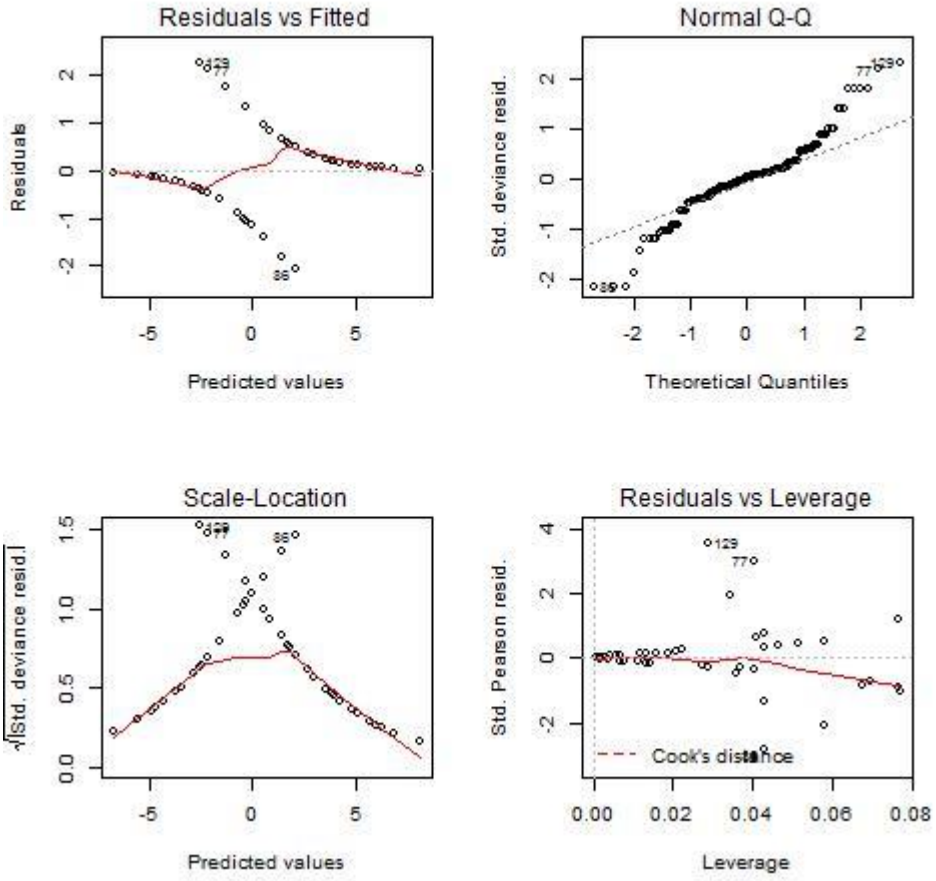

Escherichia coli EC1623 - 25 mM Lactic Acid
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

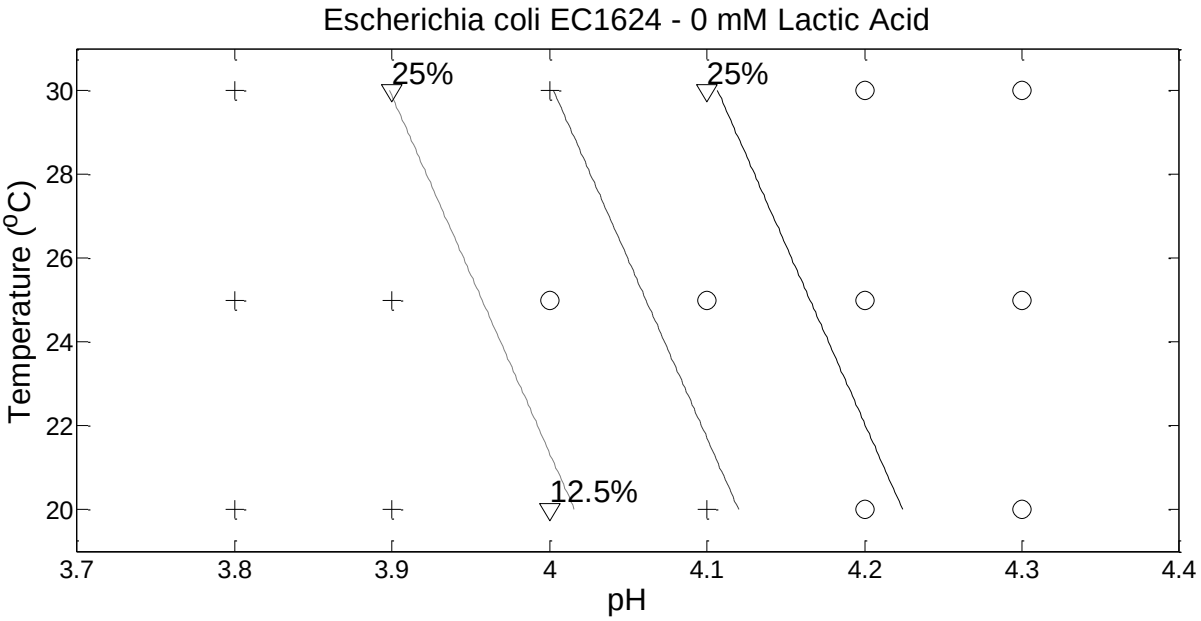
94. *E. coli* EC1624 Bovine NTEC II, B60 (Prof. J. Mainil (Ulg, Liège, Belgium))

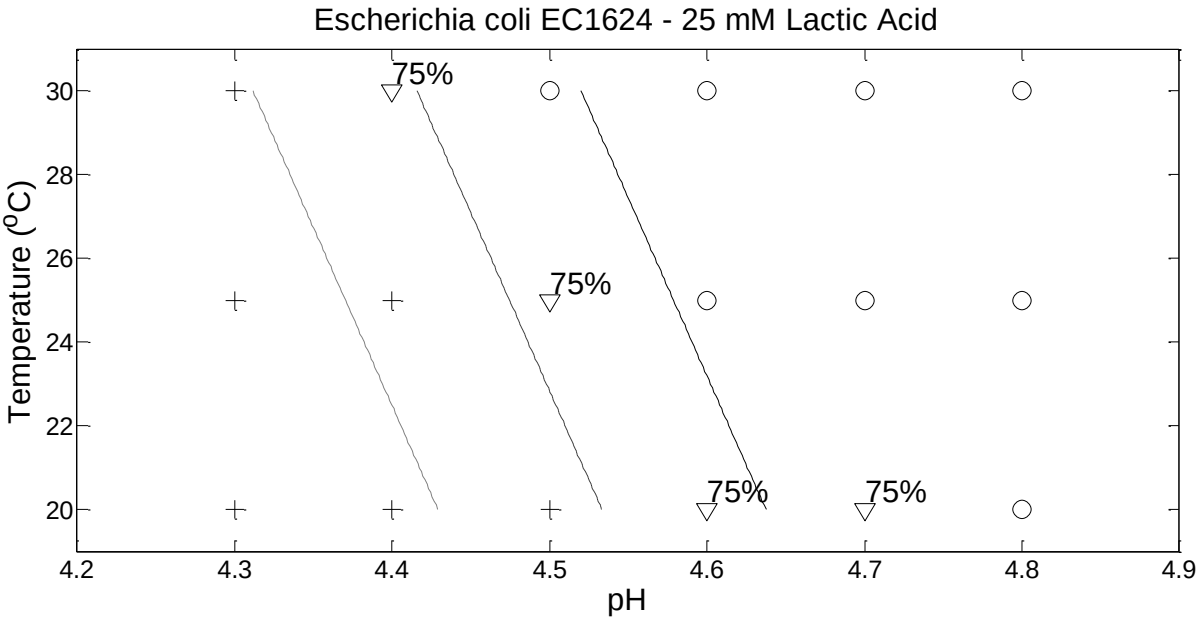
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-91.87	15.17	-6.05	0.00	-126.36	-66.05	0.00	0.00	0.00
pH	21.10	3.49	6.04	0.00	15.14	29.03	1.45E+09	3.76E+06	4.06E+12
LA	-0.35	0.06	-5.48	0.00	-0.49	-0.24	0.71	0.61	0.79
Temp	0.25	0.08	3.10	0.00	0.10	0.42	1.28	1.11	1.52

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	216.16	
pH	1	60.94	154	155.21	0.00
LA	1	67.36	153	87.86	0.00
Temp	1	11.69	152	76.17	0.00

AIC	84.17
Likelihood Ratio	3.8E-30
Log-Likelihood	-38.08




Escherichia coli EC1624 - 0 mM Lactic Acid
25%
25%
12.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

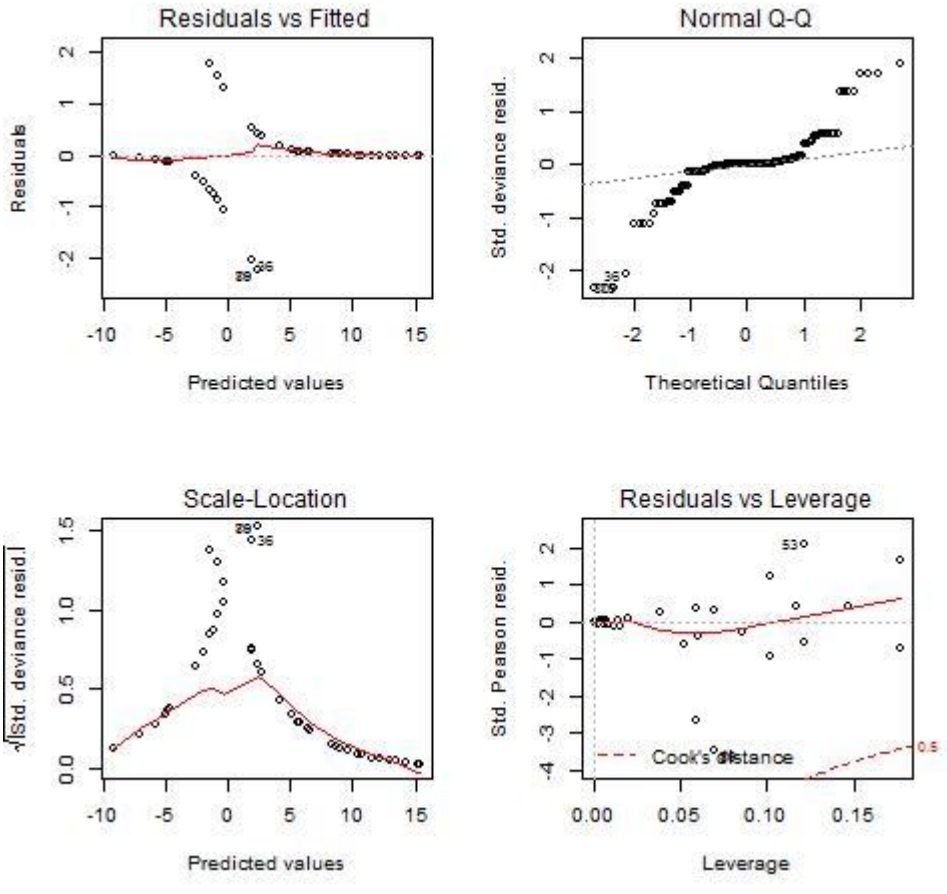

Escherichia coli EC1624 - 25 mM Lactic Acid
75%
75%
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

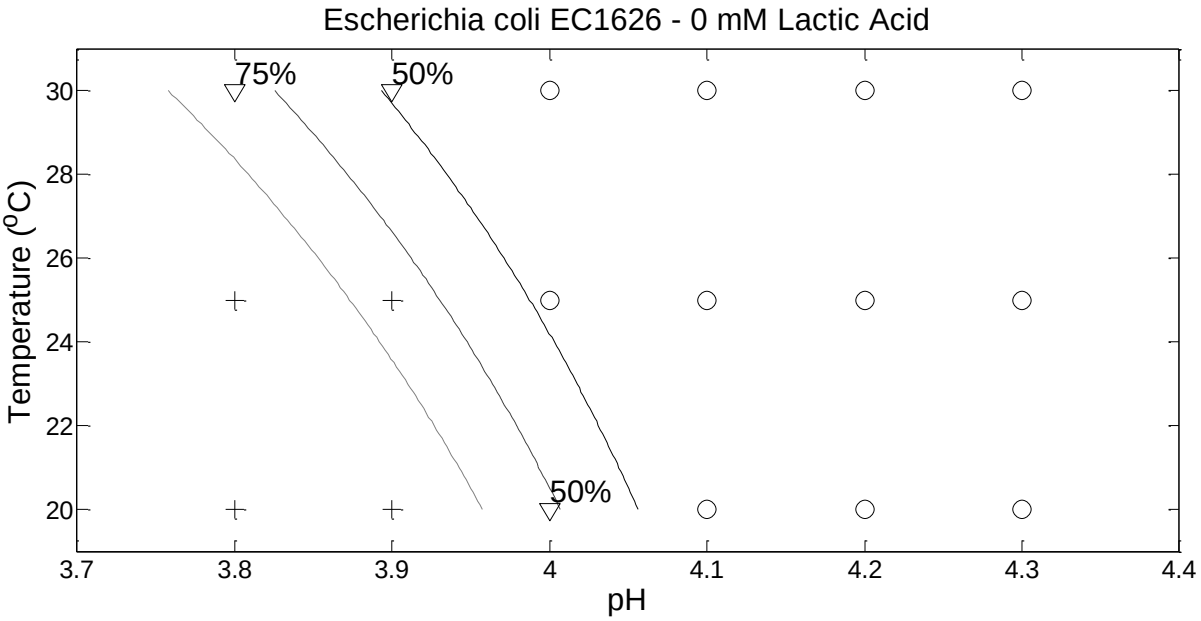
95. *E.coli* EC1626 Bovine NTEC II, C1845 (Prof. J. Mainil (Ulg, Liège, Belgium))

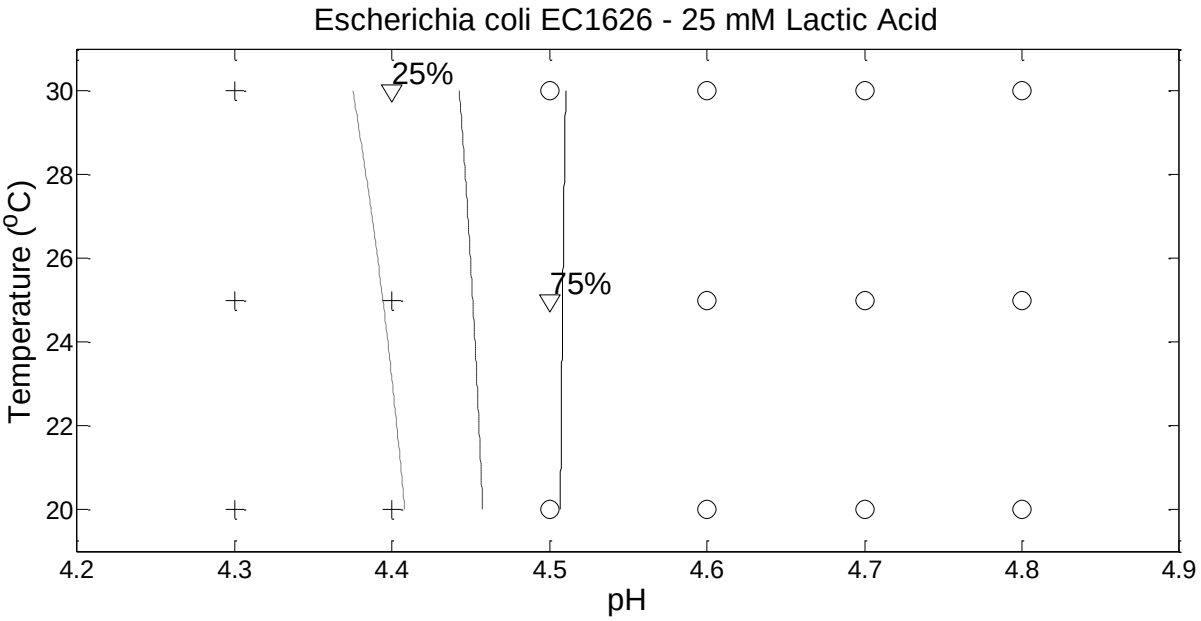
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-286.34	69.53	-4.12	0.00	-451.07	-171.40	0.00	0.00	0.00
pH	68.52	16.70	4.10	0.00	40.93	108.19	5.73E+29	5.97E+17	9.66E+46
LA	-0.80	0.18	-4.50	0.00	-1.23	-0.52	0.45	0.29	0.60
Temp	5.40	1.79	3.03	0.00	2.28	9.51	222.31	9.78	1.35E+04
pH:Temp	-1.20	0.42	-2.87	0.00	-2.17	-0.47	0.30	0.11	0.63

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	202.49	
pH	1	33.85	154	168.65	0.00
LA	1	95.57	153	73.08	0.00
Temp	1	15.59	152	57.49	0.00
pH:Temp	1	11.36	151	46.13	0.00

AIC	56.13
Likelihood Ratio	8.82E-33
Log-Likelihood	-23.07




Escherichia coli EC1626 - 0 mM Lactic Acid
75%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

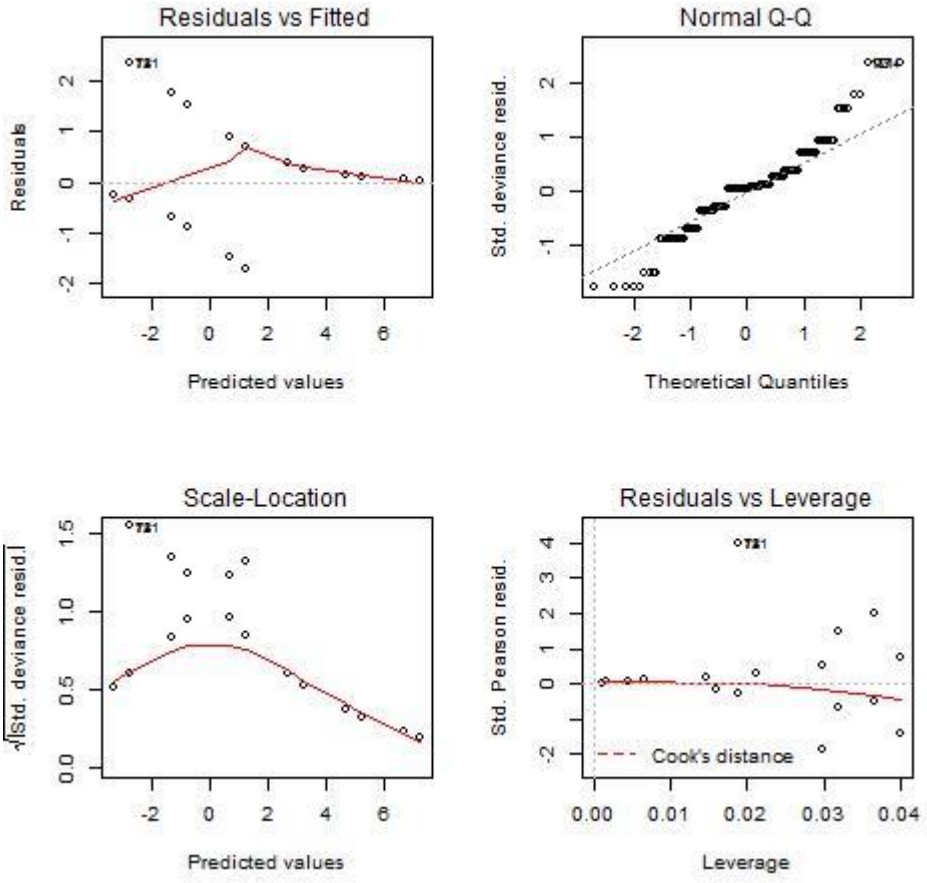

Escherichia coli EC1626 - 25 mM Lactic Acid
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

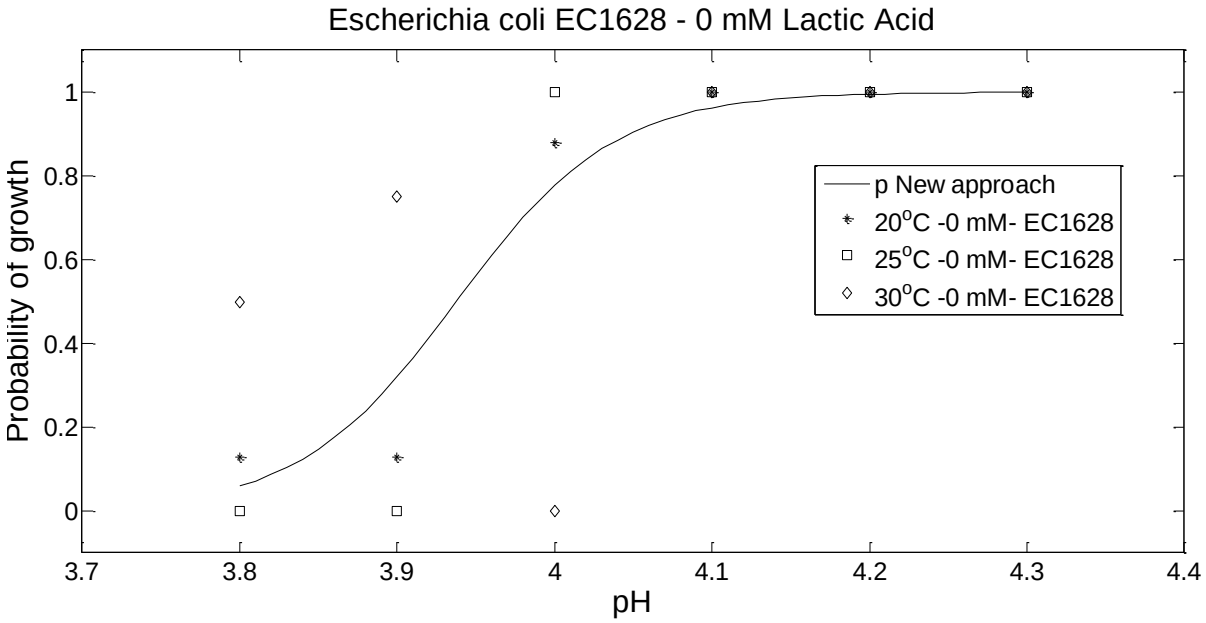
96. *E.coli* EC1628 Bovine NTEC II, 44KH90 (Prof. J. Mainil (Ulg, Liège, Belgium))

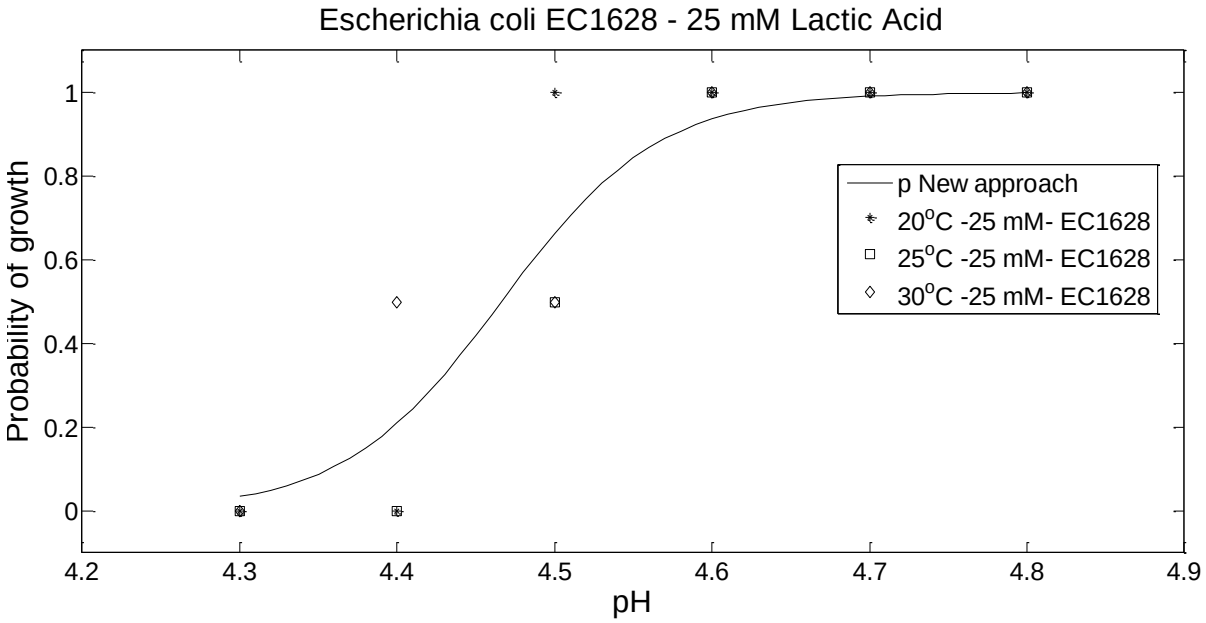
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-78.94	12.95	-6.10	0.00	-107.83	-56.57	0.00	0.00	0.00
pH	20.05	3.29	6.10	0.00	14.37	27.38	5.09E+08	1.75E+06	7.81E+11
LA	-0.42	0.07	-5.79	0.00	-0.59	-0.30	0.65	0.56	0.74

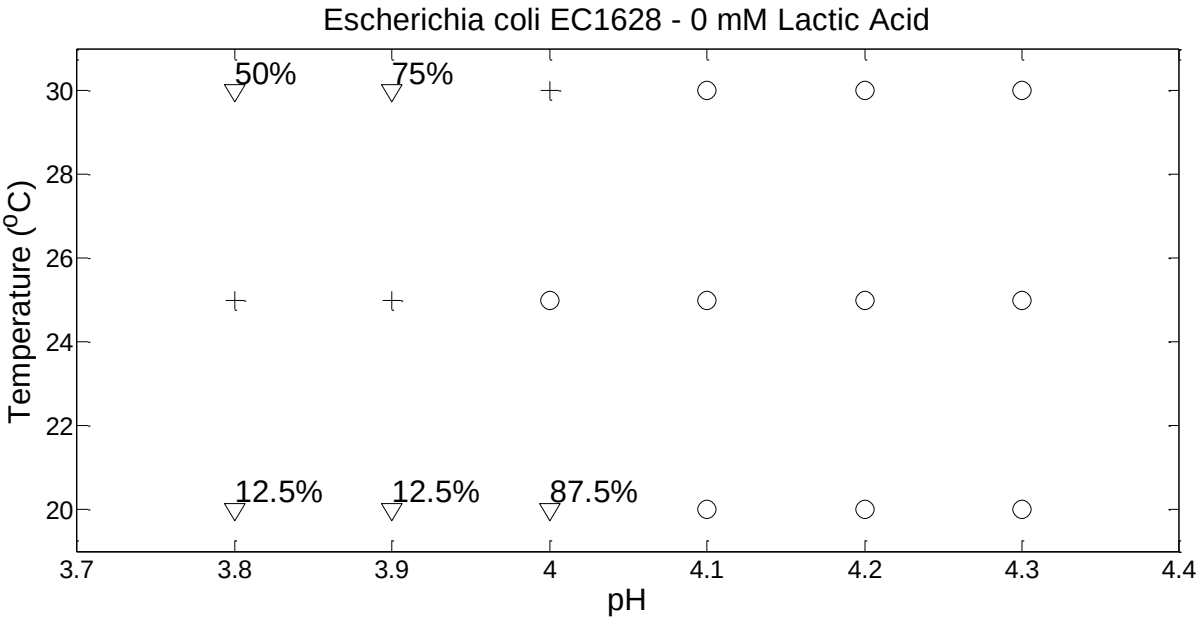
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			155	203.68	
pH	1	26.66	154	177.02	0.00
LA	1	89.60	153	87.41	0.00

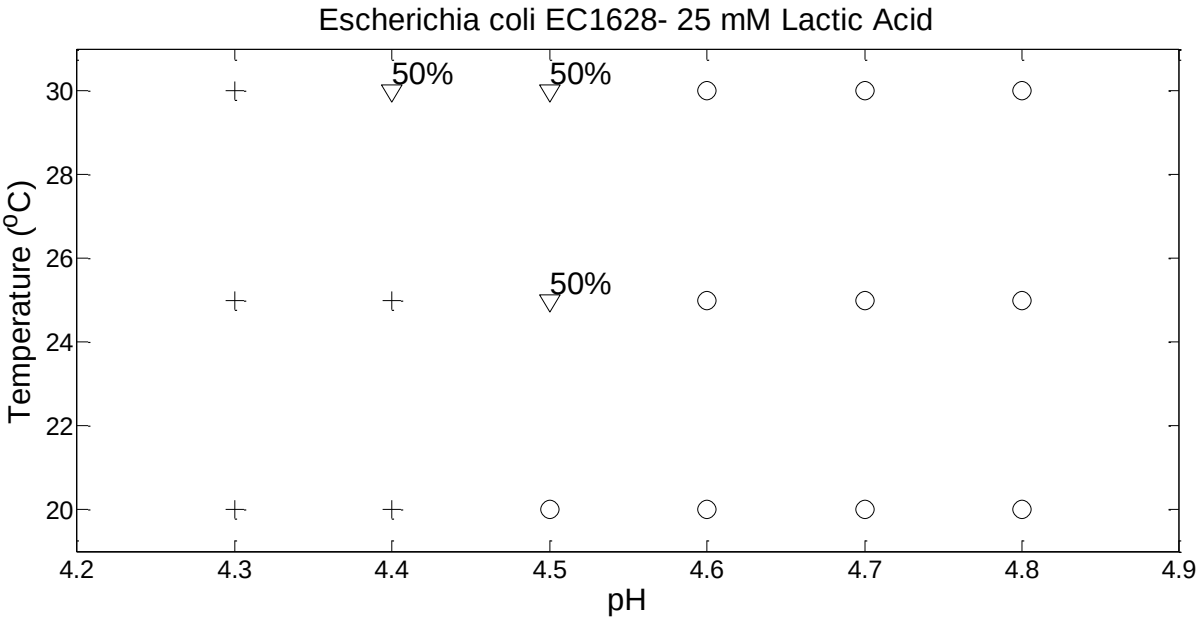
AIC	93.41
Likelihood Ratio	5.66E-26
Log-Likelihood	-43.71




Escherichia coli EC1628 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1628
25°C -0 mM- EC1628
30°C -0 mM- EC1628
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1628 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1628
25°C -25 mM- EC1628
30°C -25 mM- EC1628
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1628 - 0 mM Lactic Acid
50%
75%
12.5%
12.5%
87.5%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

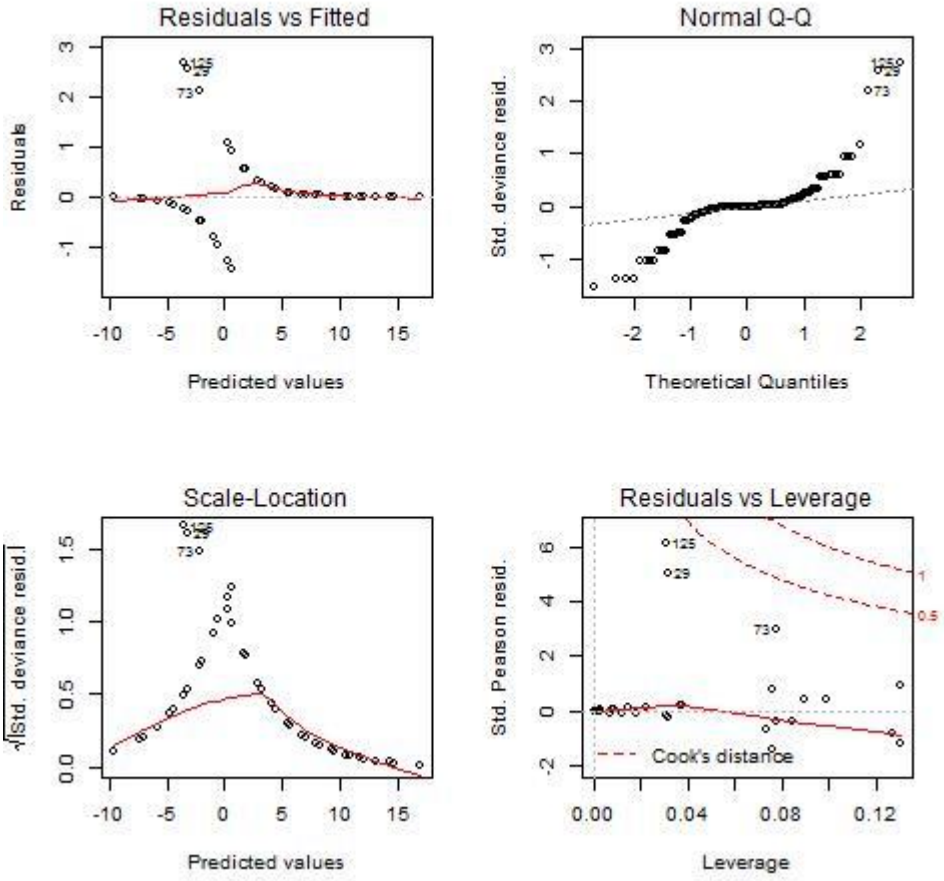

Escherichia coli EC1628- 25 mM Lactic Acid
50%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

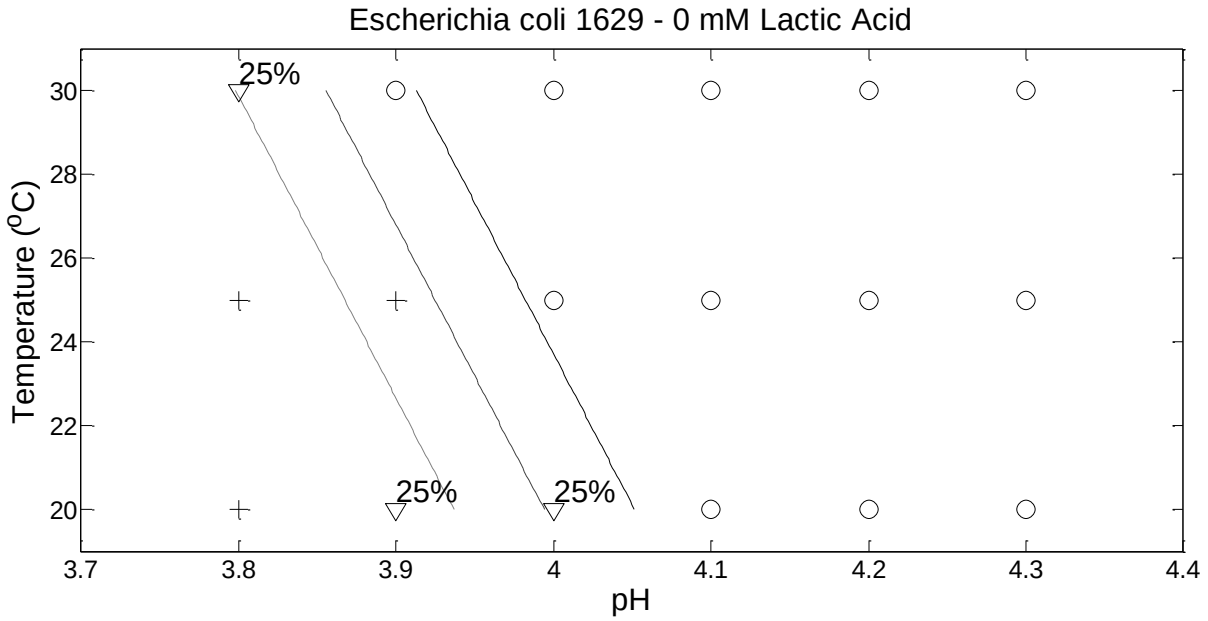
97. *E.coli* EC1629 Bovine NTEC II, 239KH89 (Prof. J. Mainil (Ulg, Liège, Belgium))

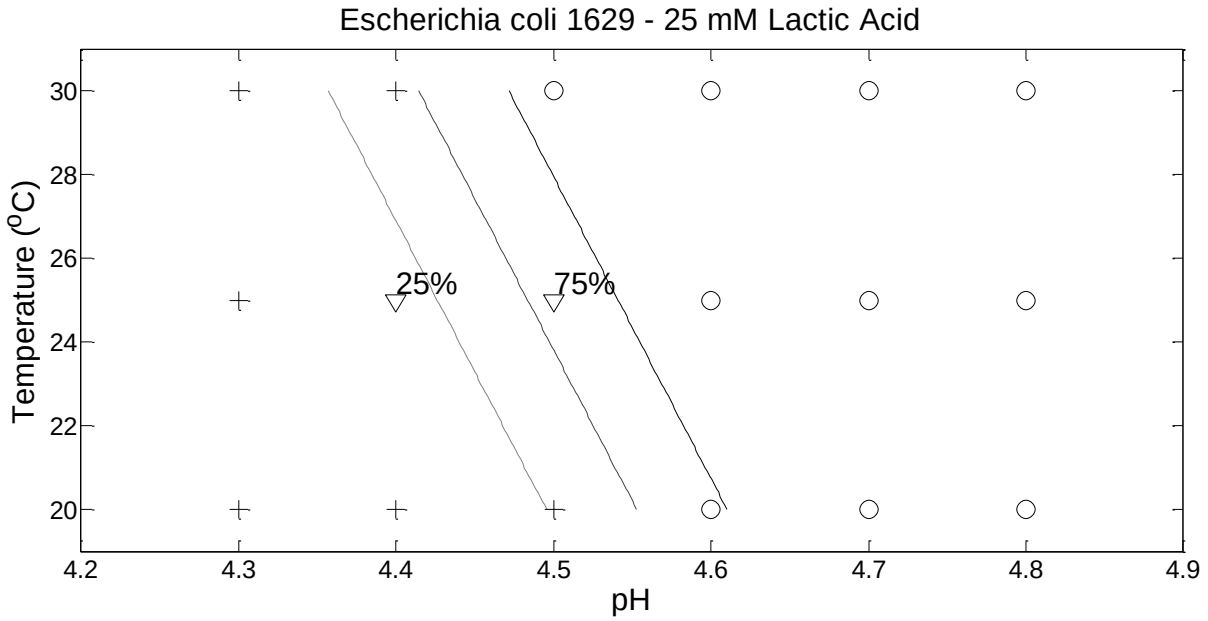
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-163.67	36.82	-4.44	0.00	-253.80	-105.27	0.00	0.00	0.00
pH	38.32	8.59	4.46	0.00	24.68	59.26	4.39E+16	5.25E+10	5.46E+25
LA	-0.86	0.19	-4.39	0.00	-1.33	-0.55	0.42	0.26	0.58
Temp	0.53	0.16	3.39	0.00	0.27	0.91	1.70	1.31	2.49

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	184.67	
pH	1	17.82	142	166.86	0.00
LA	1	103.12	141	63.73	0.00
Temp	1	22.65	140	41.08	0.00

AIC	49.08
Likelihood Ratio	6.37E-31
Log-Likelihood	-20.54




Escherichia coli 1629 - 0 mM Lactic Acid
25%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

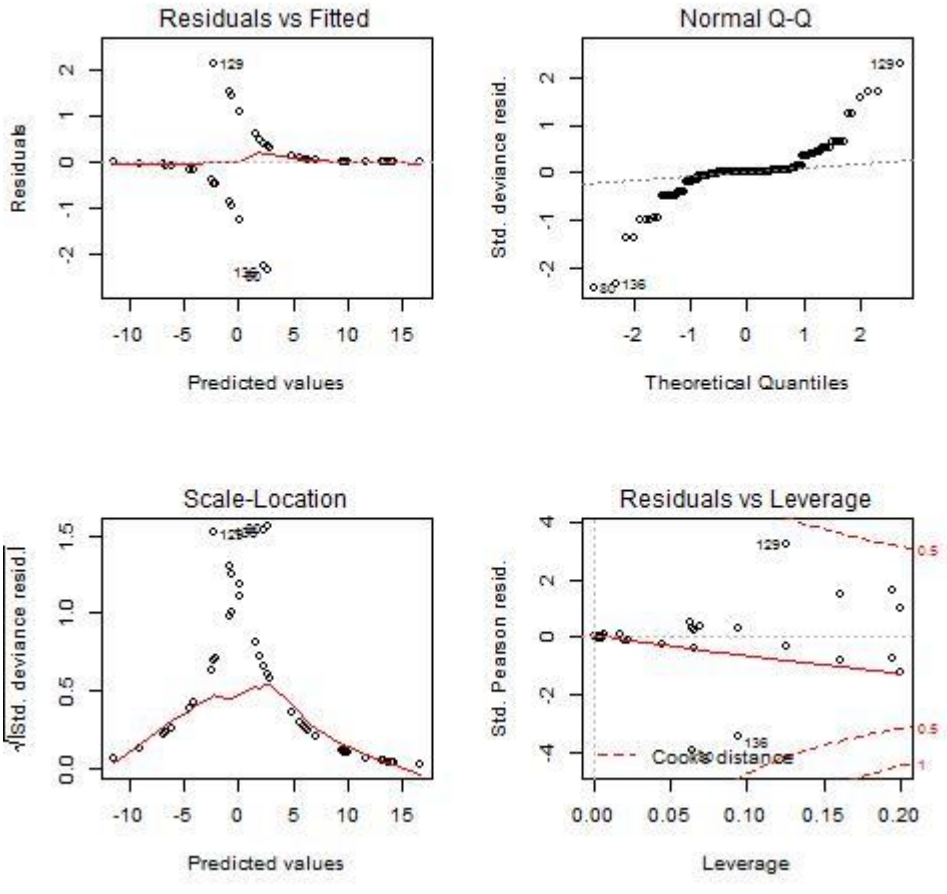

Escherichia coli 1629 - 25 mM Lactic Acid
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

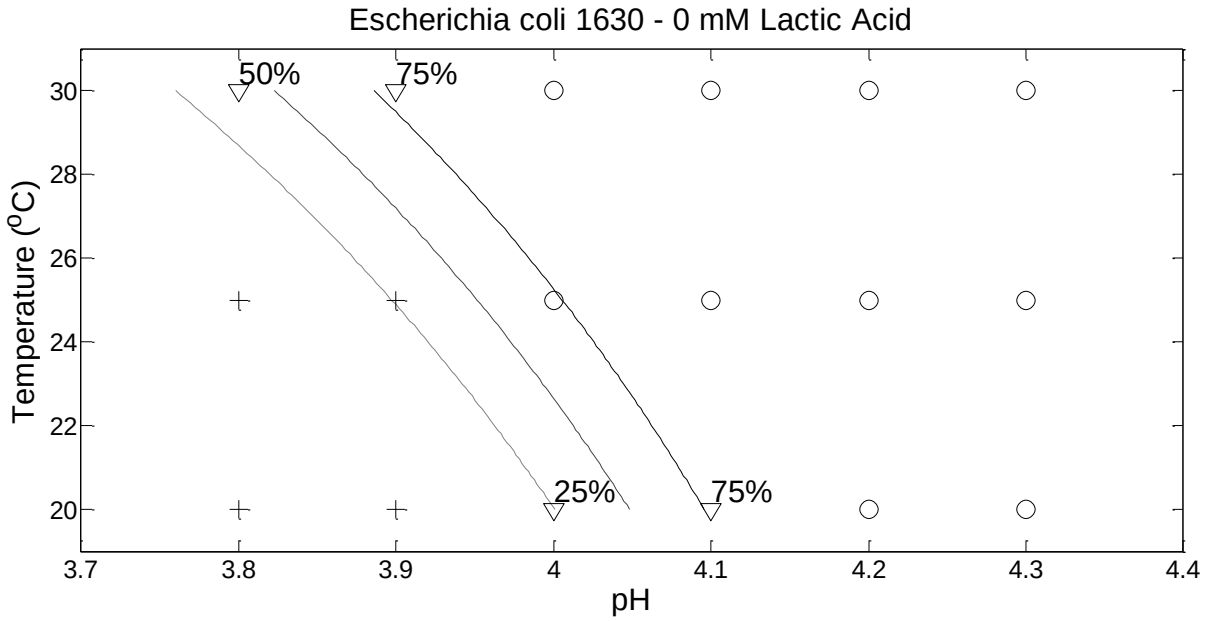
98. *E.coli* EC1630 ETEC, 298A (Prof. J. Mainil (Ulg, Liège, Belgium))

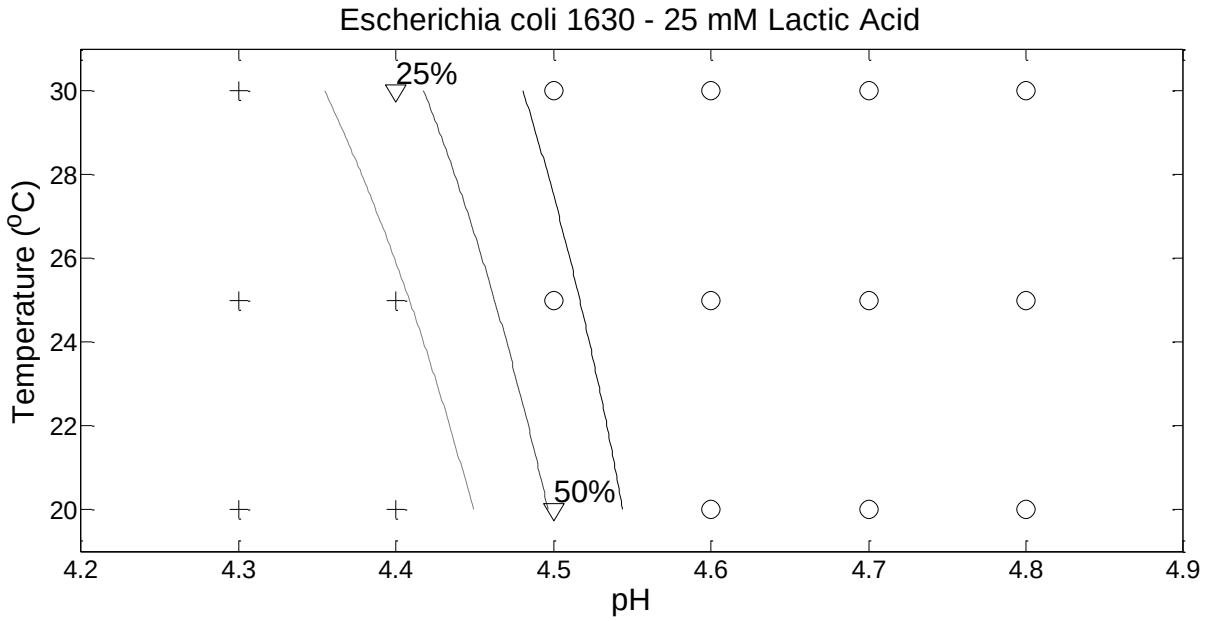
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-295.48	77.48	-3.81	0.00	-482.45	-168.21	0.00	0.00	0.00
pH	69.11	18.12	3.81	0.00	39.24	112.59	1.03E+30	1.10E+17	7.91E+48
LA	-0.83	0.19	-4.33	0.00	-1.30	-0.52	0.44	0.27	0.59
Temp	5.40	1.99	2.72	0.01	1.93	10.01	222.17	6.89	22157.01
pH:Temp	-1.14	0.45	-2.53	0.01	-2.17	-0.34	0.32	0.11	0.71

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	183.32	
pH	1	24.45	142	158.86	0.00
LA	1	88.36	141	70.50	0.00
Temp	1	24.02	140	46.48	0.00
pH:Temp	1	8.35	139	38.13	0.00

AIC	48.13
Likelihood Ratio	2.18E-30
Log-Likelihood	-19.06




Escherichia coli 1630 - 0 mM Lactic Acid
50%
75%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

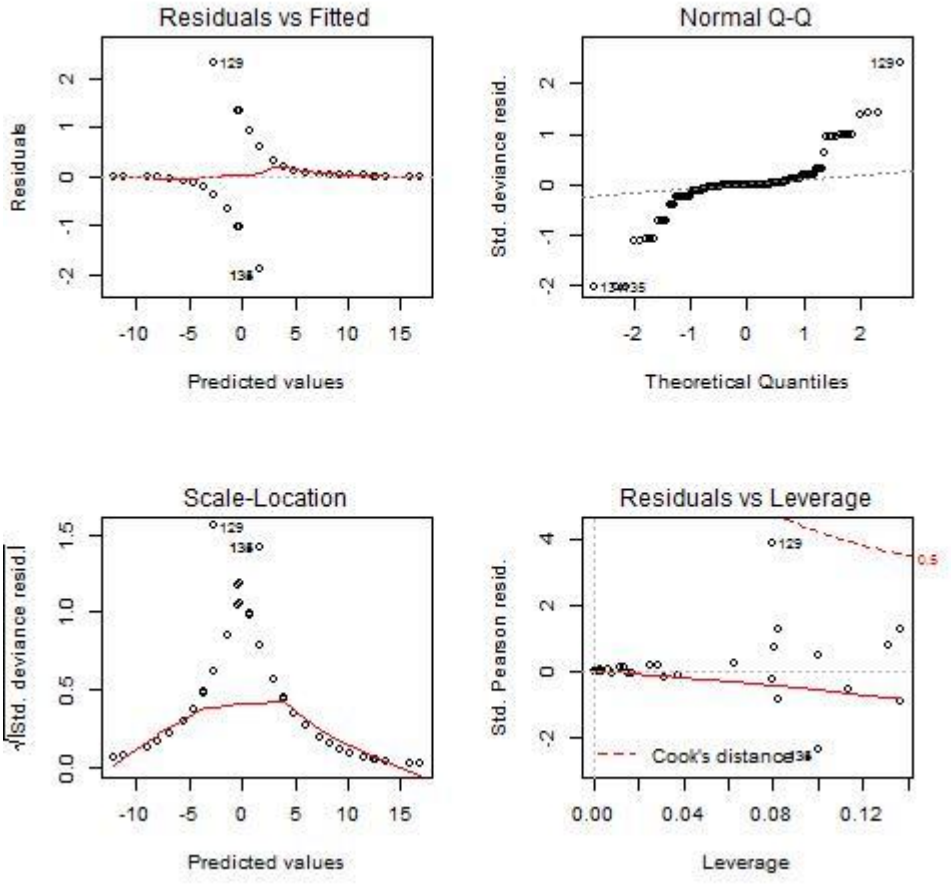

Escherichia coli 1630 - 25 mM Lactic Acid
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

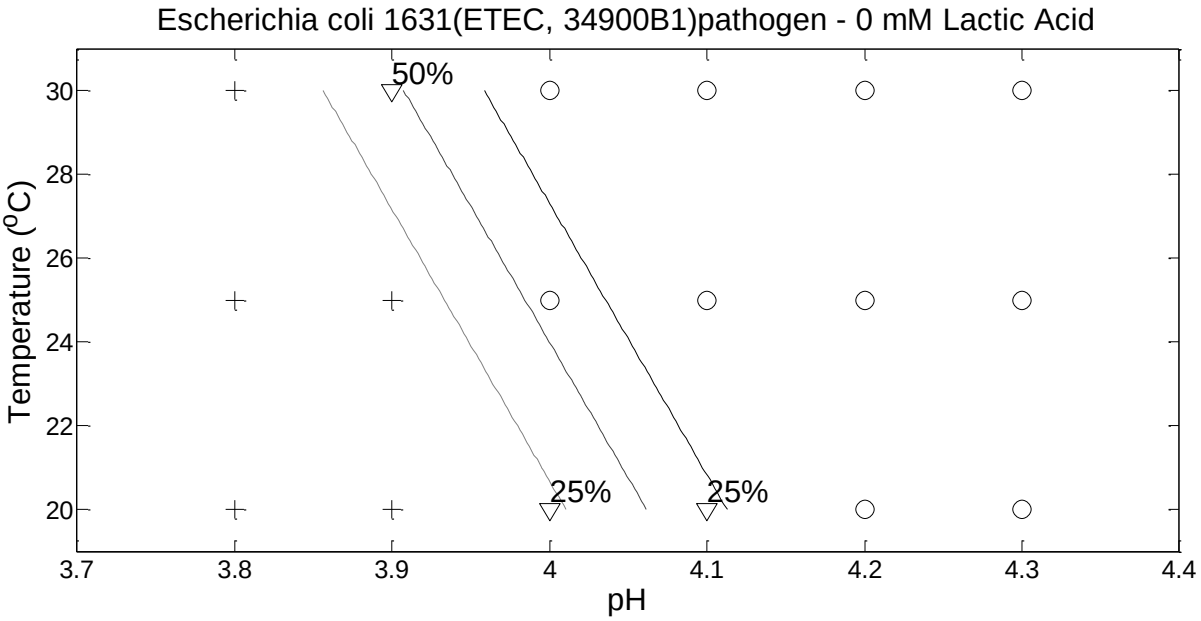
99. *E.coli* EC1631 ETEC, 34900B1 (Prof. J. Mainil (Ulg, Liège, Belgium))

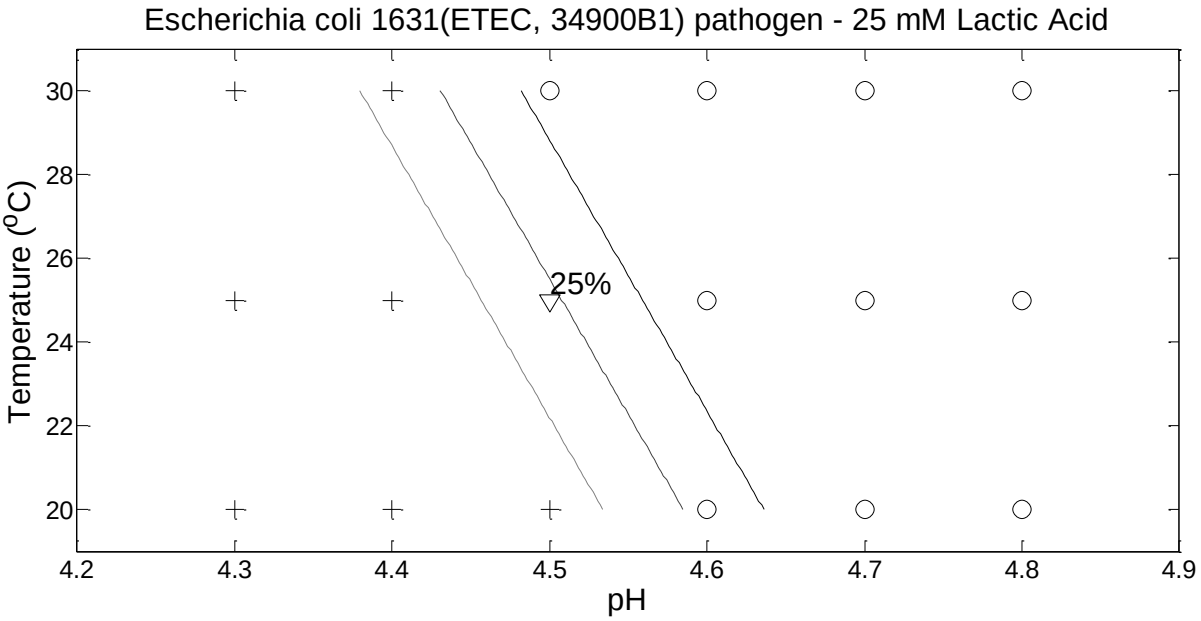
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-187.65	47.36	-3.96	0.00	-319.53	-116.86	0.00	0.00	0.00
pH	42.94	10.71	4.01	0.00	26.84	72.49	4.46E+18	4.52E+11	3.03E+31
LA	-0.90	0.22	-4.01	0.00	-1.50	-0.56	0.41	0.22	0.57
Temp	0.66	0.21	3.17	0.00	0.34	1.24	1.94	1.41	3.47

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	194.91	
pH	1	26.45	142	168.45	0.00
LA	1	103.02	141	65.43	0.00
Temp	1	27.62	140	37.81	0.00

AIC	45.81
Likelihood Ratio	7.76E-34
Log-Likelihood	-18.91




Escherichia coli 1631(ETEC, 34900B1)pathogen - 0 mM Lactic Acid
50%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

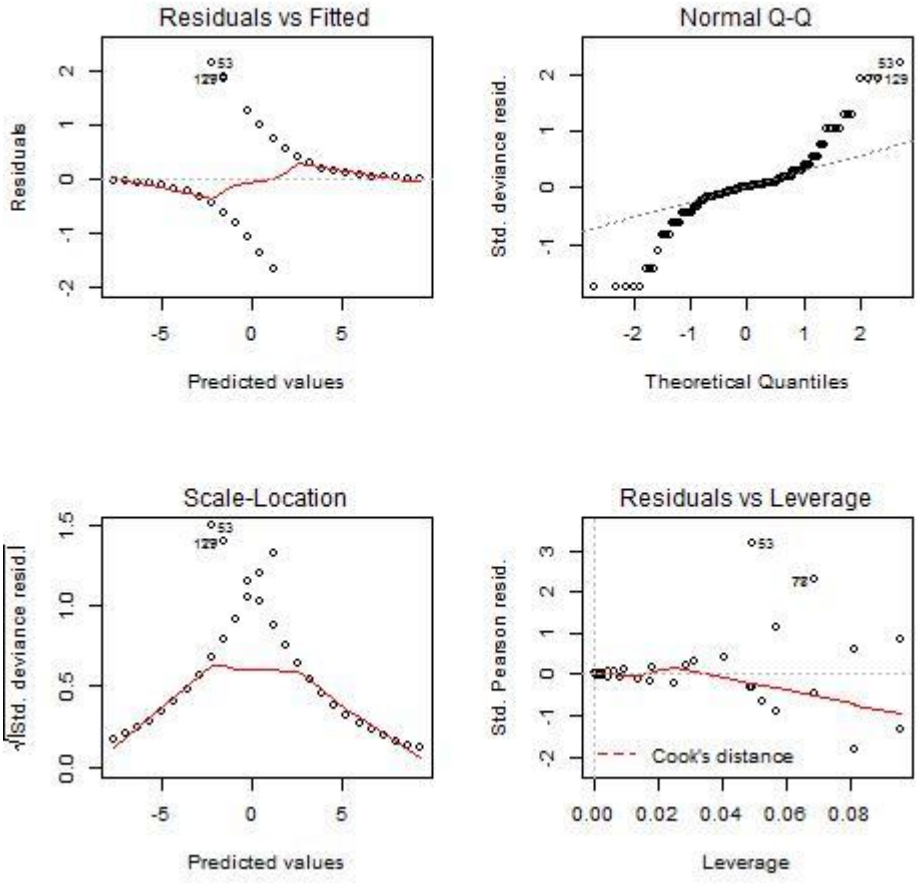

Escherichia coli 1631(ETEC, 34900B1) pathogen - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

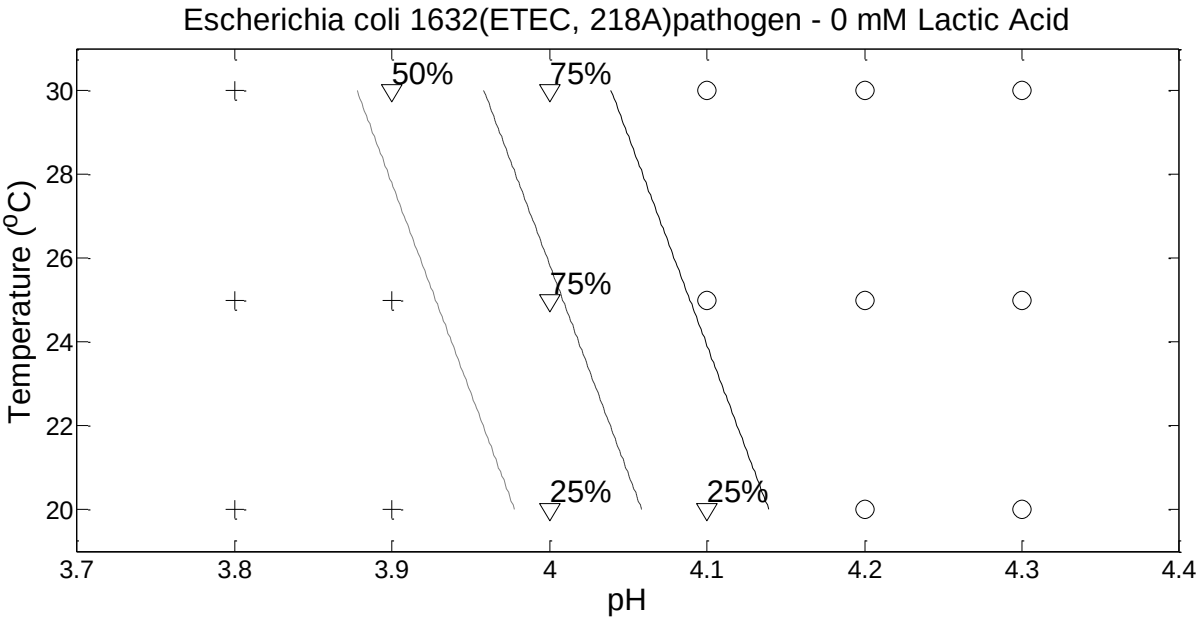
100. *E.coli* EC1632 ETEC, 218A (Prof. J. Mainil (Ulg, Liège, Belgium))

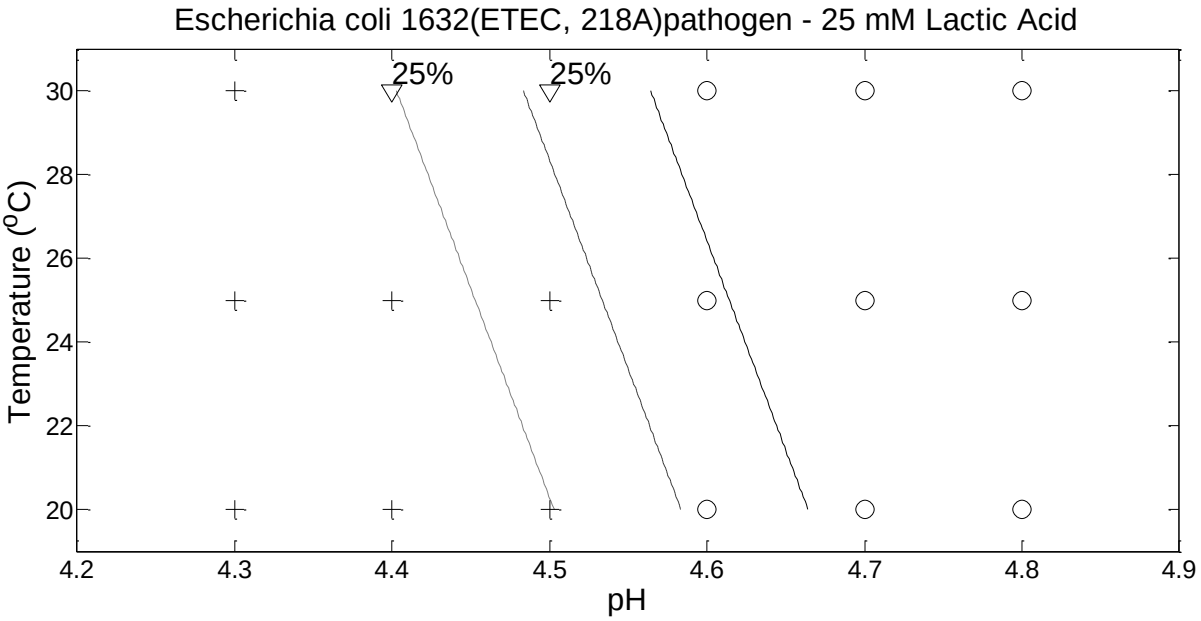
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-115.96	21.84	-5.31	0.00	-166.99	-79.93	0.00	0.00	0.00
pH	27.23	5.10	5.33	0.00	18.81	39.16	6.70E+11	1.48E+08	1.02E+17
LA	-0.57	0.11	-5.17	0.00	-0.83	-0.39	0.56	0.44	0.68
Temp	0.27	0.10	2.81	0.00	0.10	0.48	1.31	1.10	1.62

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	198.26	
pH	1	27.00	142	171.26	0.00
LA	1	103.44	141	67.82	0.00
Temp	1	10.02	140	57.80	0.00

AIC	65.80
Likelihood Ratio	3E-30
Log-Likelihood	-28.90




Escherichia coli 1632(ETEC, 218A)pathogen - 0 mM Lactic Acid
50%
75%
75%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

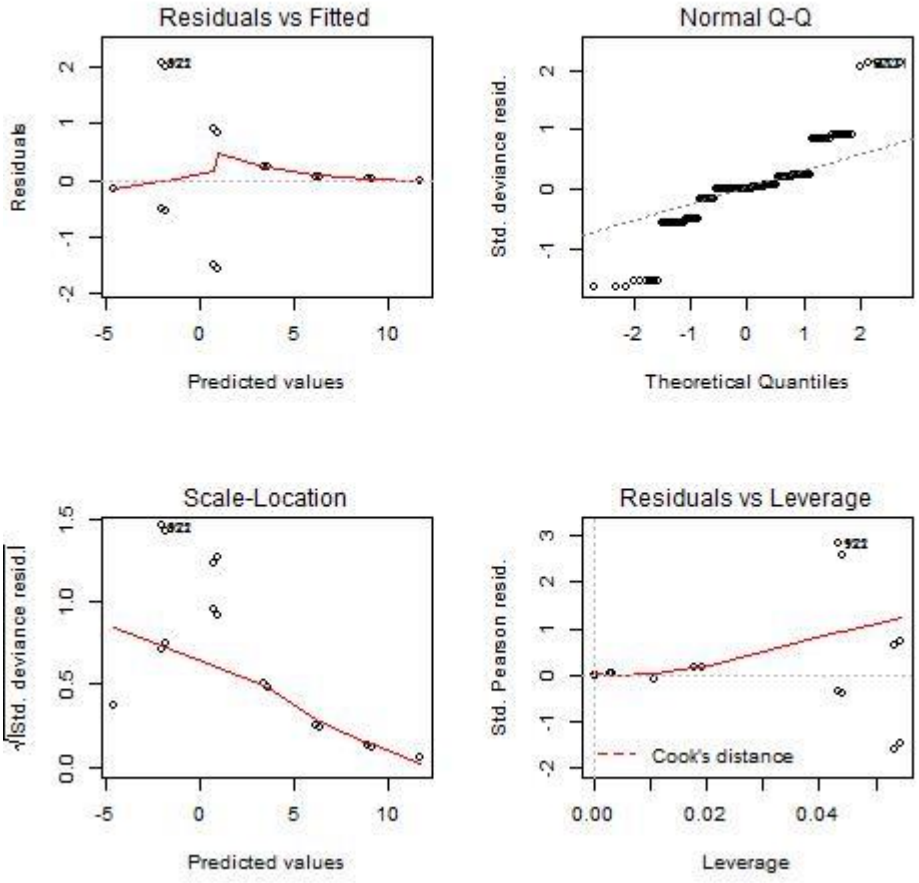

Escherichia coli 1632(ETEC, 218A)pathogen - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

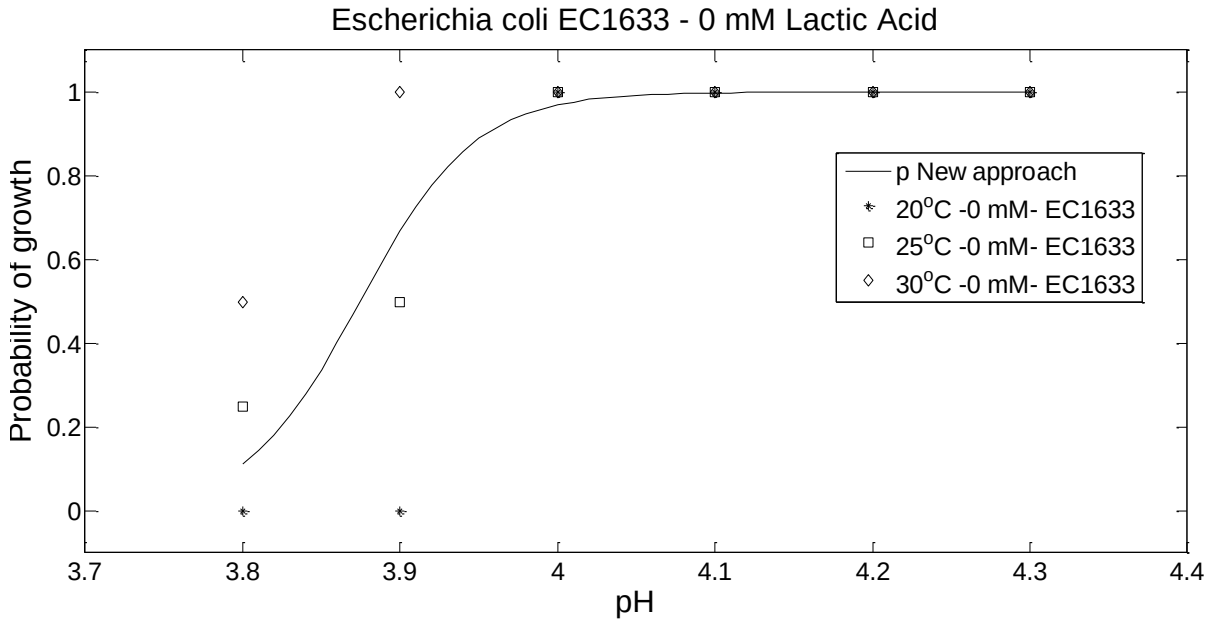
101. *E.coli* EC1633 ETEC, 288A (Prof. J. Mainil (Ulg, Liège, Belgium))

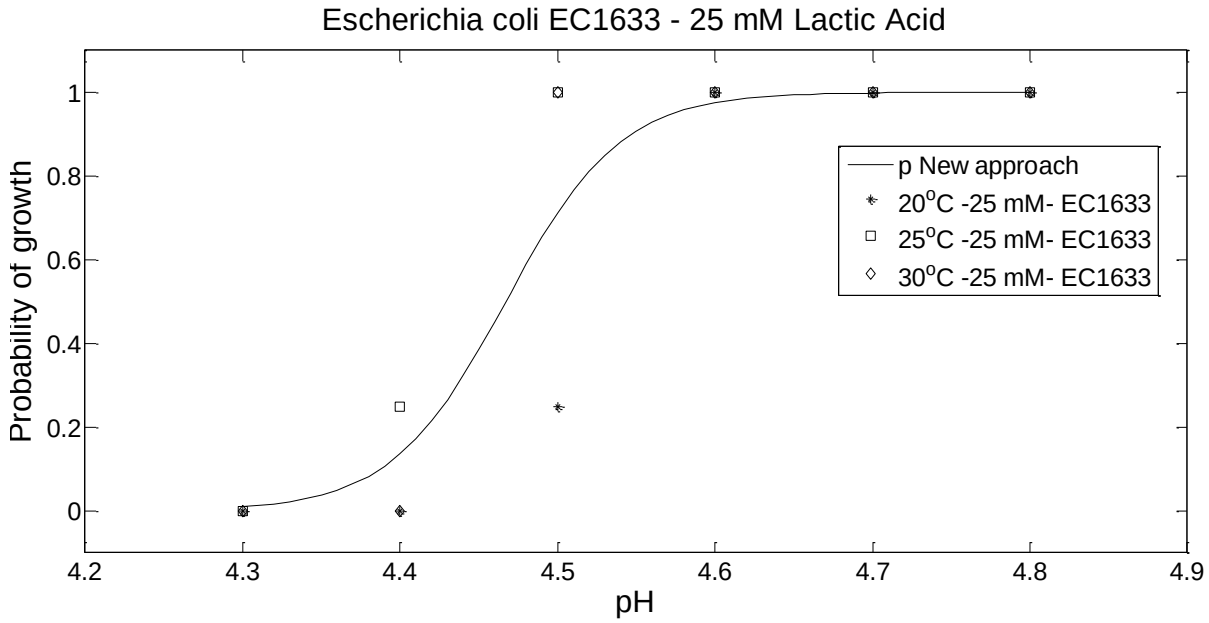
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-106.82	21.10	-5.06	0.00	-155.86	-71.77	0.00	0.00	0.00
pH	27.57	5.43	5.07	0.00	18.55	40.20	9.40E+11	1.13E+08	2.87E+17
LA	-0.65	0.13	-5.00	0.00	-0.96	-0.44	0.52	0.38	0.65

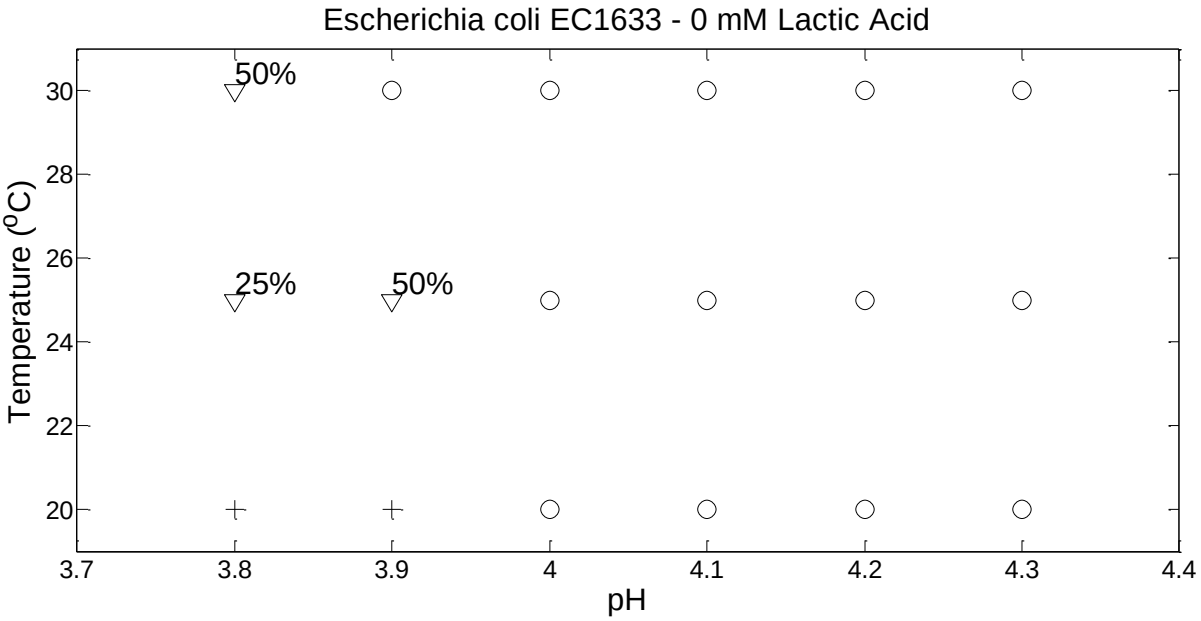
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	172.04	
pH	1	10.36	142	161.68	0.00
LA	1	105.90	141	55.77	0.00

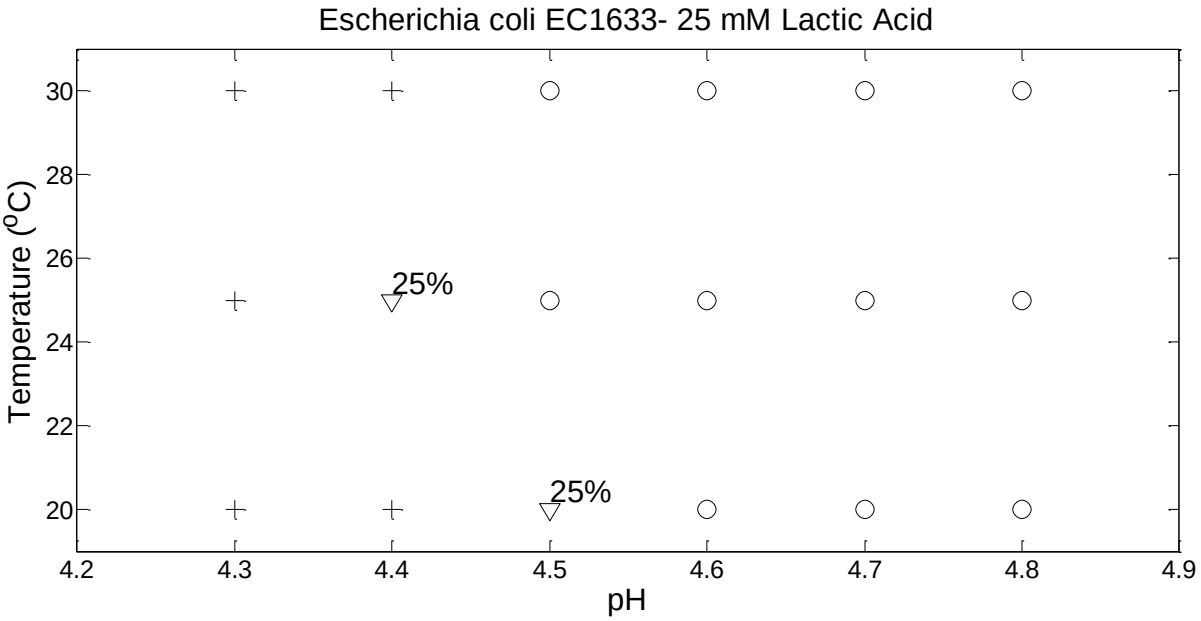
AIC	61.77
Likelihood Ratio	5.67E-26
Log-Likelihood	-27.89




Escherichia coli EC1633 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1633
25°C -0 mM- EC1633
30°C -0 mM- EC1633
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1633 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1633
25°C -25 mM- EC1633
30°C -25 mM- EC1633
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1633 - 0 mM Lactic Acid
50%
25%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

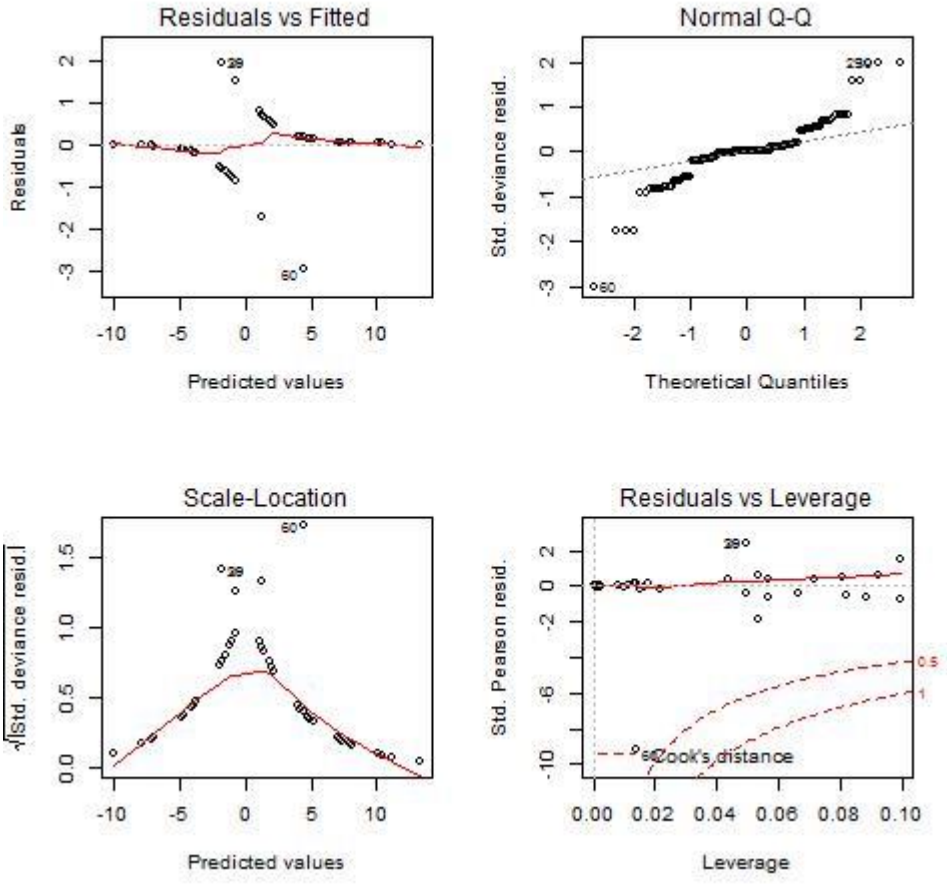

Escherichia coli EC1633- 25 mM Lactic Acid
25%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

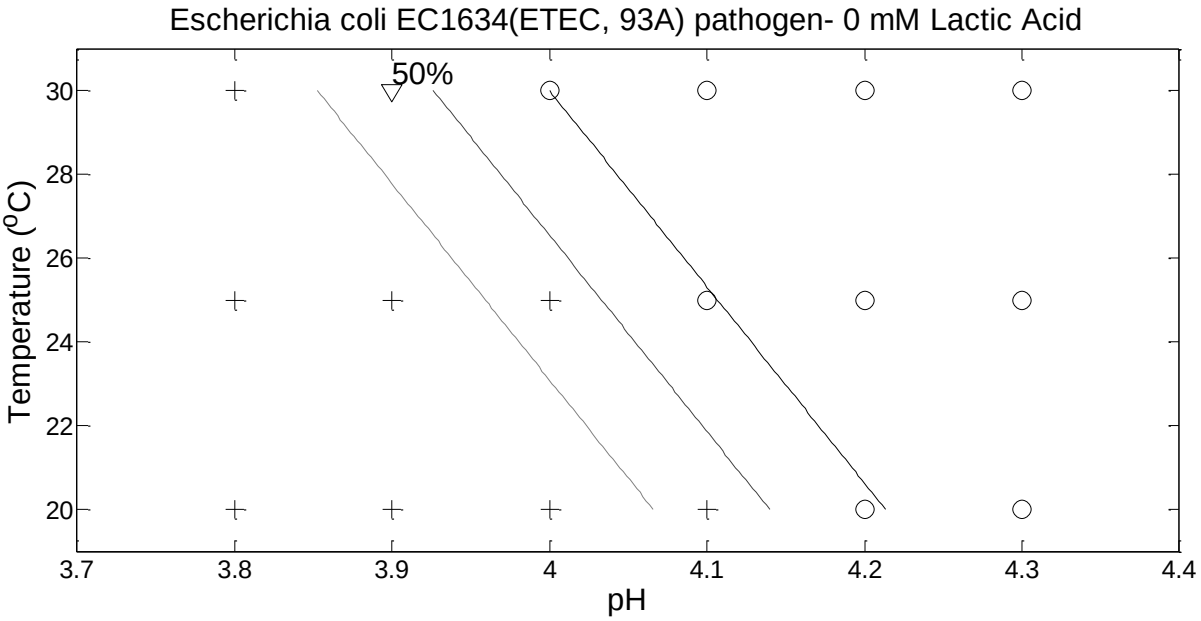
102. *E.coli* EC1634 ETEC, 93A (Prof. J. Mainil (Ulg, Liège, Belgium))

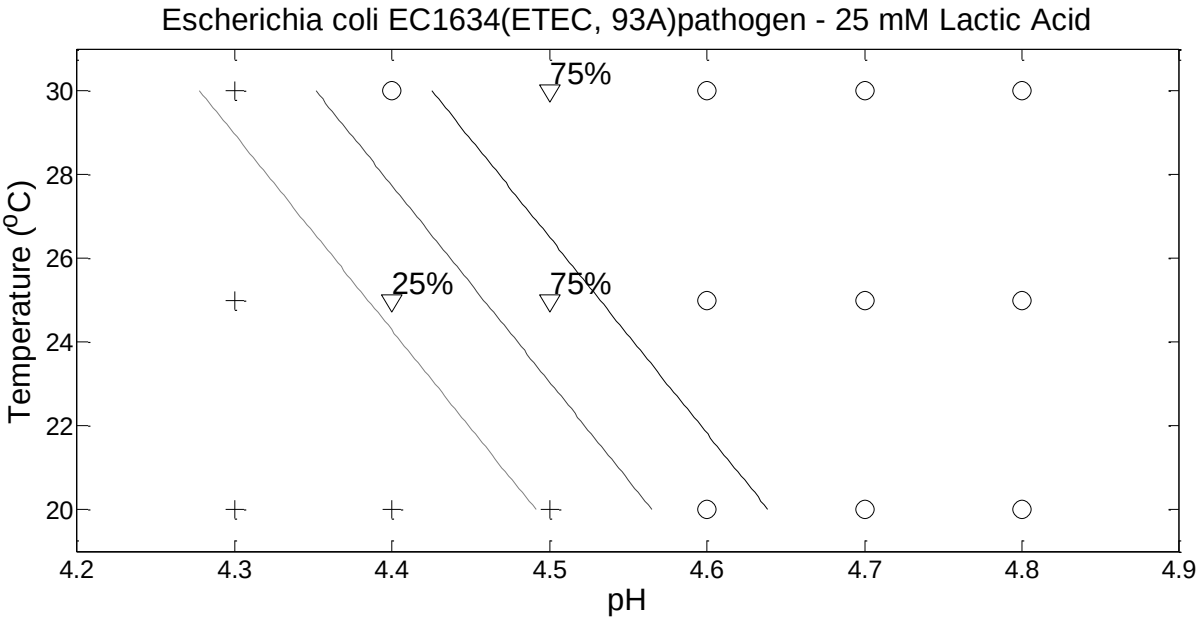
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-136.08	26.68	-5.10	0.00	-197.76	-91.92	0.00	0.00	0.00
pH	29.80	5.83	5.11	0.00	20.14	43.26	8.75E+12	5.56E+08	6.16E+18
LA	-0.51	0.10	-4.85	0.00	-0.75	-0.33	0.60	0.47	0.72
Temp	0.64	0.15	4.20	0.00	0.38	0.99	1.89	1.46	2.68

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	194.91	
pH	1	42.94	142	151.97	0.00
LA	1	60.89	141	91.08	0.00
Temp	1	39.22	140	51.86	0.00

AIC	59.86
Likelihood Ratio	8.33E-31
Log-Likelihood	-25.93




Escherichia coli EC1634(ETEC, 93A) pathogen- 0 mM Lactic Acid
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

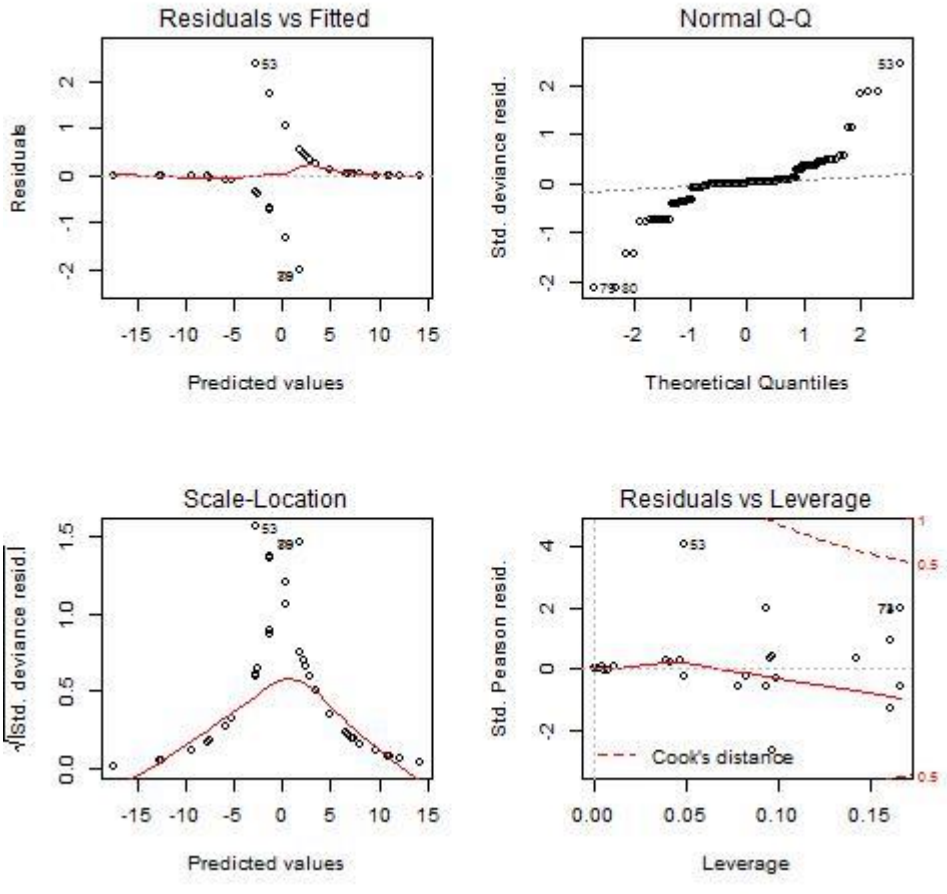

Escherichia coli EC1634(ETEC, 93A)pathogen - 25 mM Lactic Acid
75%
25%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

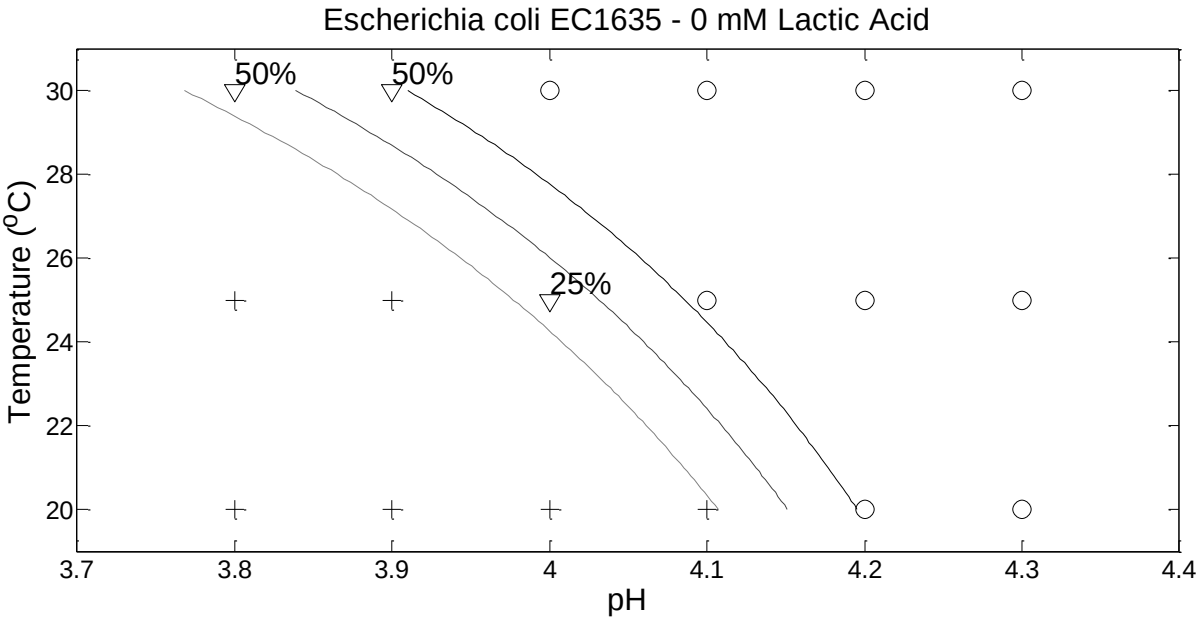
103. *E.coli* EC1635 ETEC, 213A (Prof. J. Mainil (Ulg, Liège, Belgium))

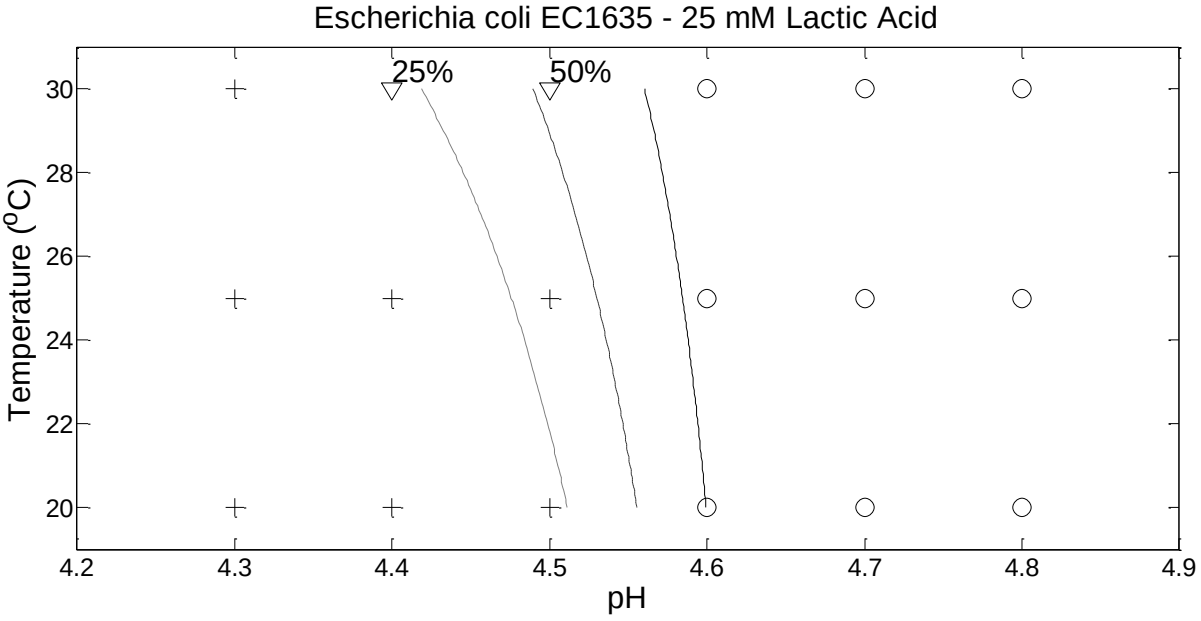
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-383.16	91.31	-4.20	0.00	-602.03	-233.09	0.00	0.00	0.00
pH	87.64	20.96	4.18	0.00	53.17	137.94	1.15E+38	1.24E+23	8.09E+59
LA	-0.81	0.18	-4.56	0.00	-1.23	-0.52	0.45	0.29	0.59
Temp	8.81	2.48	3.55	0.00	4.66	14.75	6.68E+03	1.05E+02	2.55E+06
pH:Temp	-1.89	0.55	-3.41	0.00	-3.22	-0.96	0.15	0.04	0.38

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	197.84	
pH	1	25.22	142	172.63	0.00
LA	1	83.77	141	88.85	0.00
Temp	1	29.72	140	59.14	0.00
pH:Temp	1	21.25	139	37.88	0.00

AIC	47.88
Likelihood Ratio	1.49E-33
Log-Likelihood	-18.94




Escherichia coli EC1635 - 0 mM Lactic Acid
50%
50%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

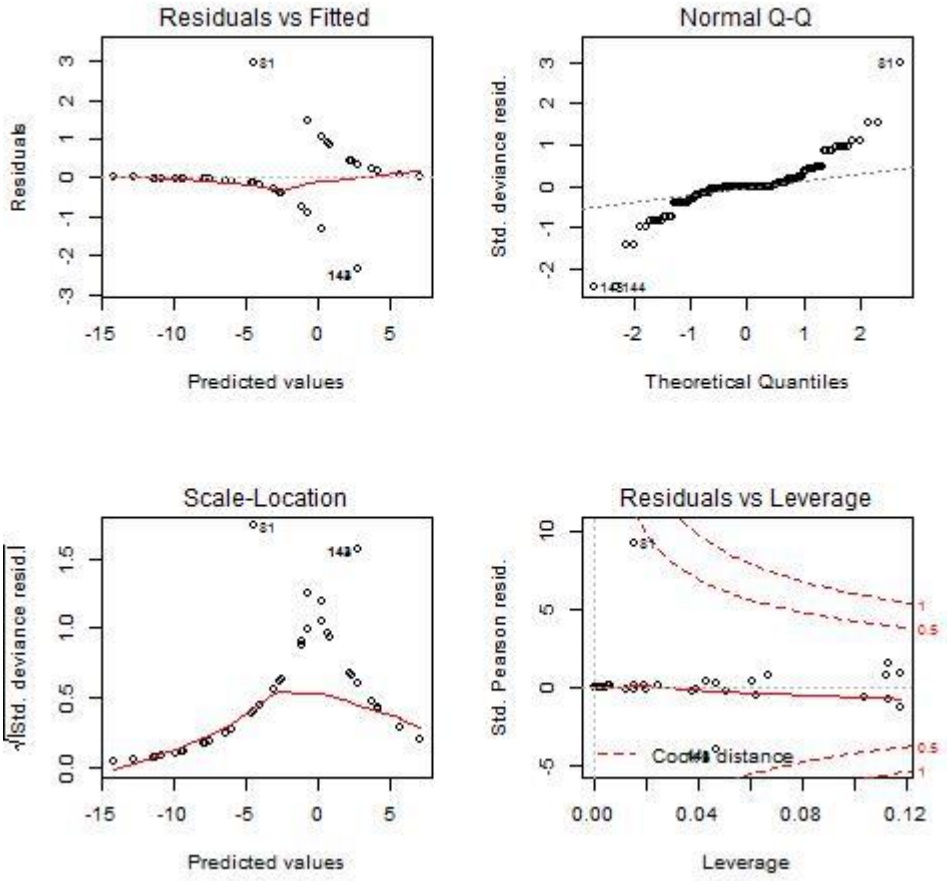

Escherichia coli EC1635 - 25 mM Lactic Acid
25%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

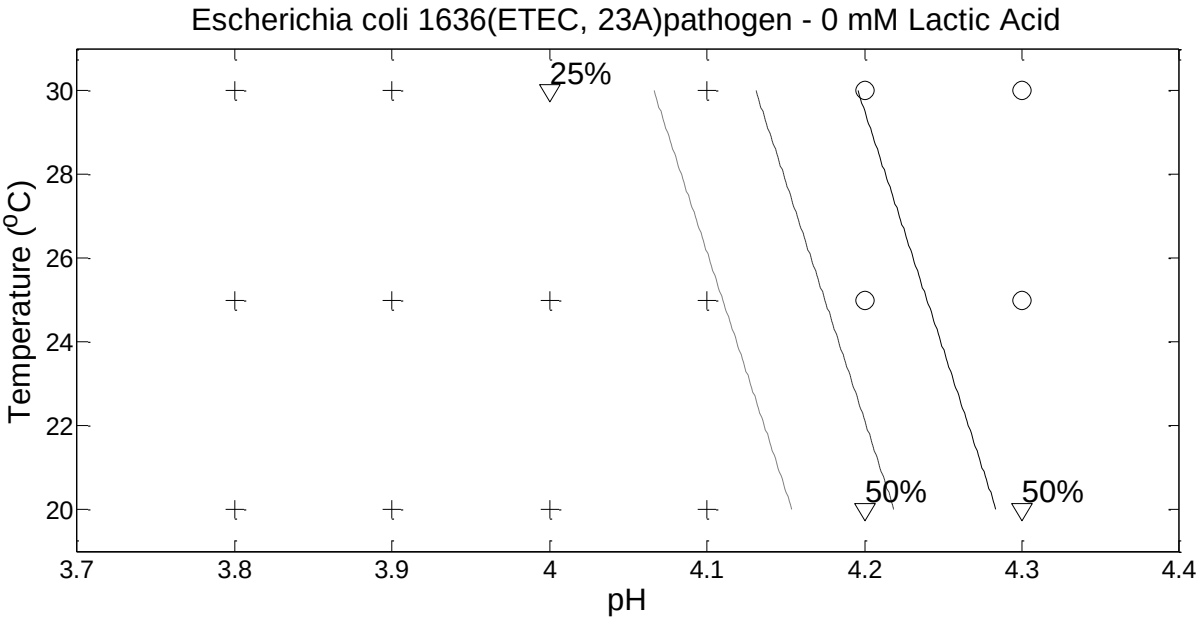
104. *E.coli* EC1636 ETEC, 23A (Prof. J. Mainil (Ulg, Liège, Belgium))

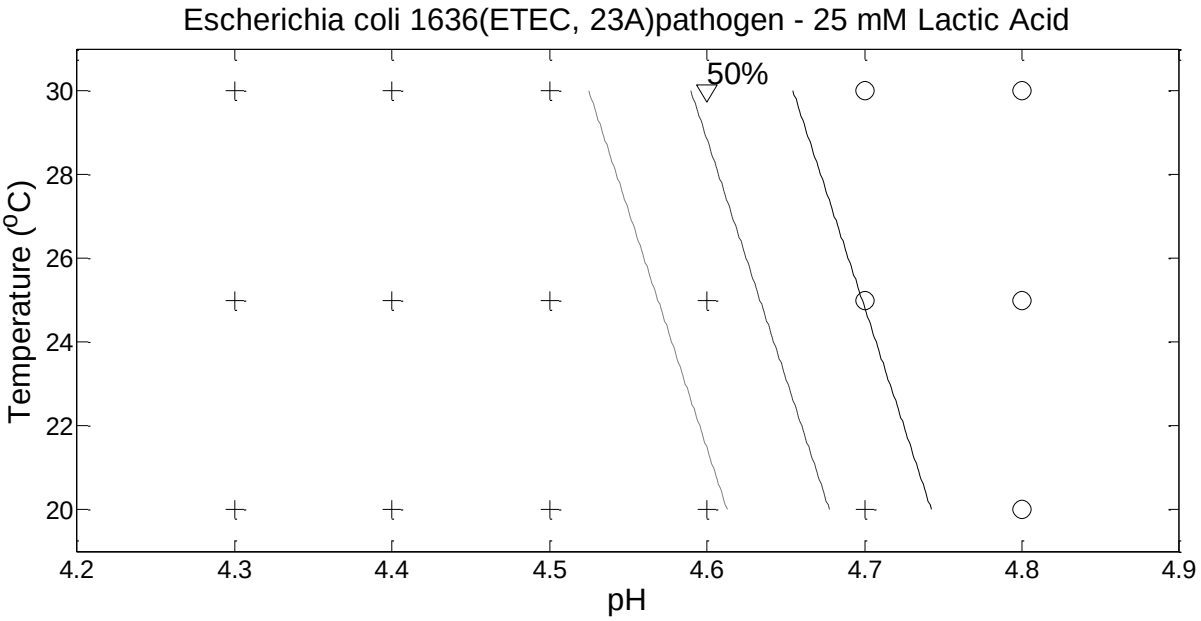
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-148.91	31.57	-4.72	0.00	-224.75	-98.10	0.00	0.00	0.00
pH	33.89	7.17	4.73	0.00	22.35	51.10	5.20E+14	5.07E+09	1.56E+22
LA	-0.62	0.14	-4.58	0.00	-0.95	-0.40	0.54	0.39	0.67
Temp	0.30	0.11	2.68	0.01	0.10	0.54	1.35	1.11	1.72

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	181.90	
pH	1	39.12	142	142.78	0.00
LA	1	86.86	141	55.92	0.00
Temp	1	9.45	140	46.48	0.00

AIC	54.48
Likelihood Ratio	3.67E-29
Log-Likelihood	-23.24




Escherichia coli 1636(ETEC, 23A)pathogen - 0 mM Lactic Acid
25%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

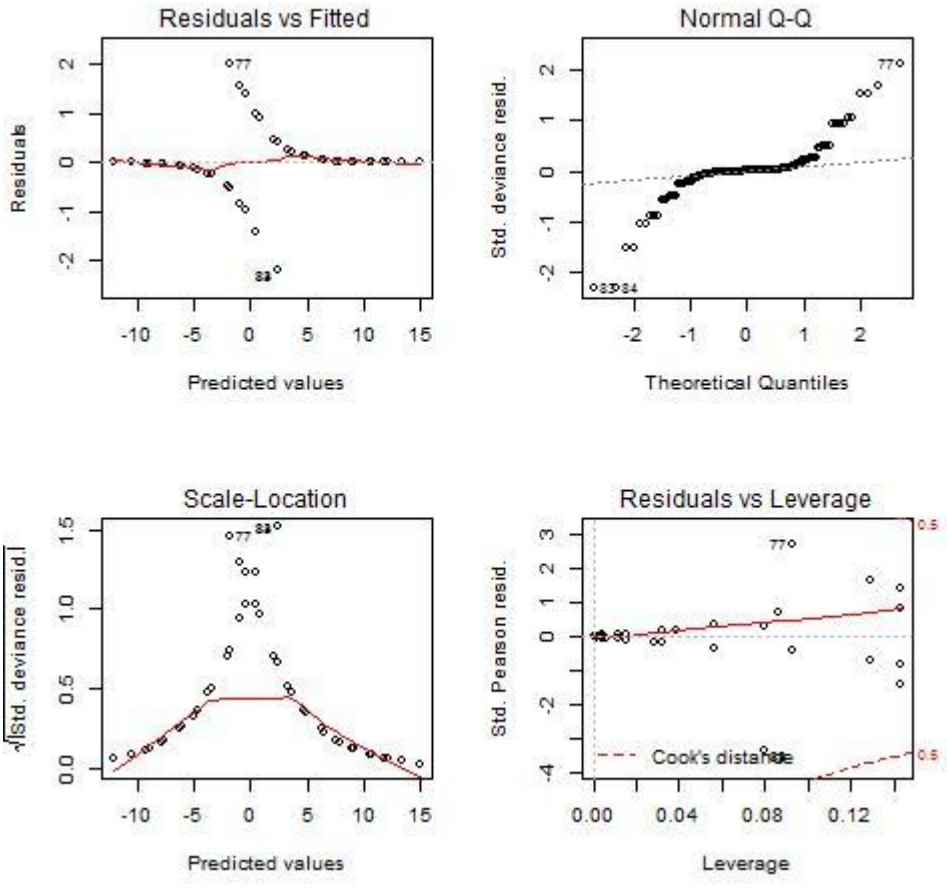

Escherichia coli 1636(ETEC, 23A)pathogen - 25 mM Lactic Acid
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

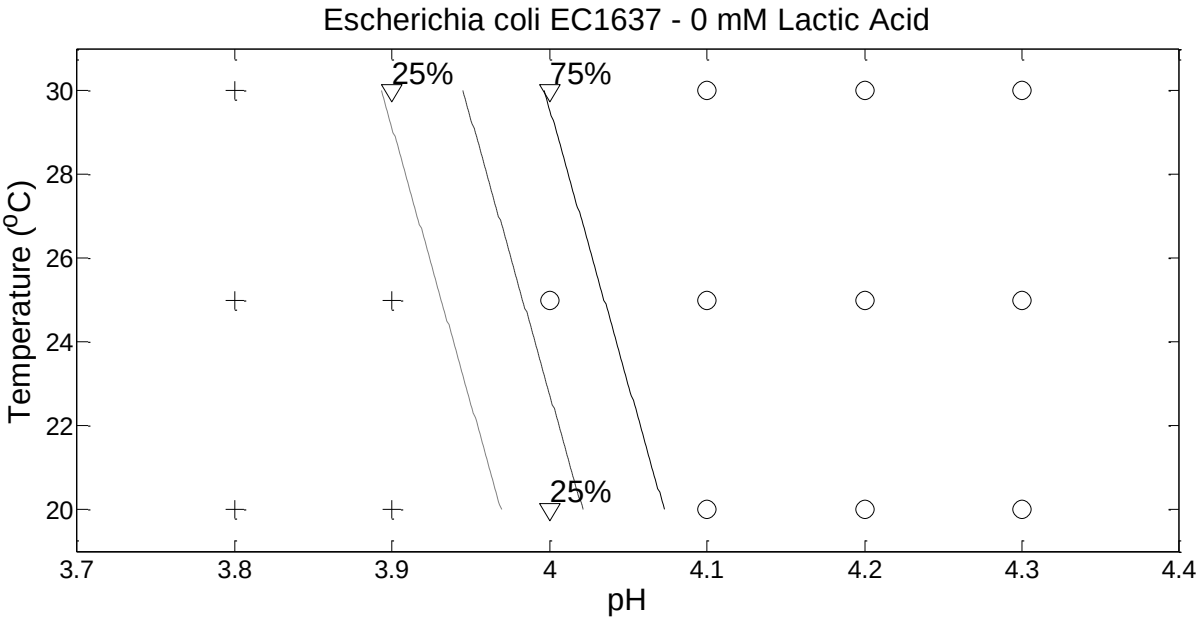
105. *E.coli* EC1637 ETEC, 70A (Prof. J. Mainil (Ulg, Liège, Belgium))

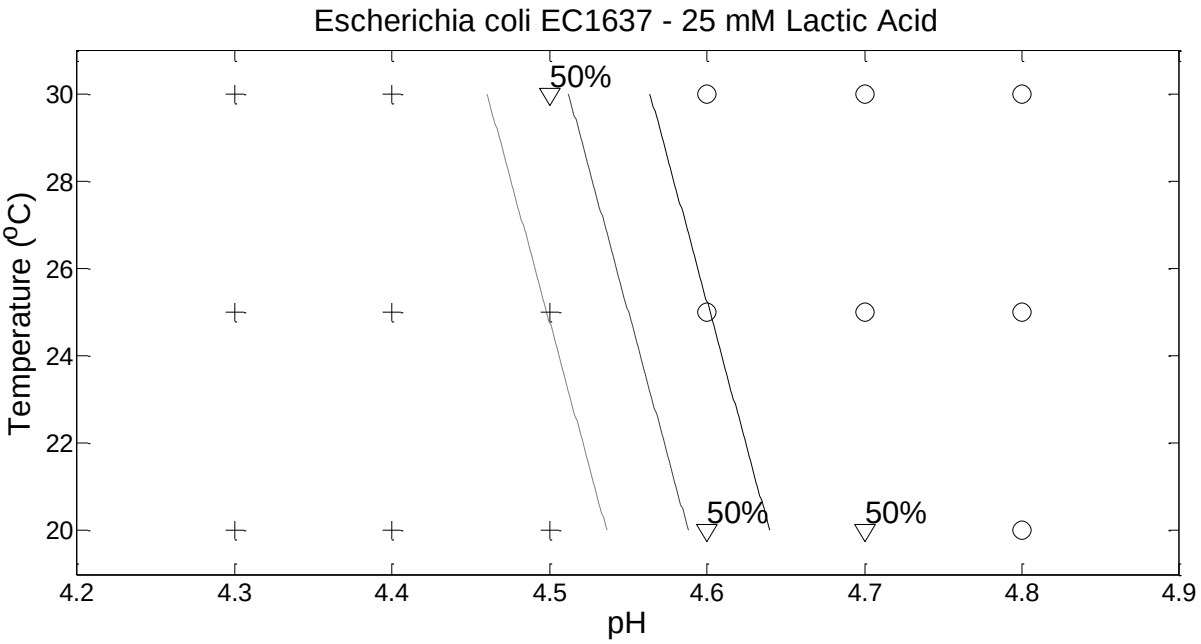
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-177.23	41.59	-4.26	0.00	-280.34	-112.41	0.00	0.00	0.00
pH	42.47	9.93	4.28	0.00	26.99	67.05	2.79E+18	5.27E+11	1.32E+29
LA	-0.96	0.23	-4.22	0.00	-1.53	-0.61	0.38	0.22	0.55
Temp	0.32	0.13	2.51	0.01	0.10	0.62	1.38	1.10	1.85

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	197.84	
pH	1	21.16	142	176.69	0.00
LA	1	130.73	141	45.96	0.00
Temp	1	8.64	140	37.31	0.00

AIC	45.31
Likelihood Ratio	1.41E-34
Log-Likelihood	-18.66




Escherichia coli EC1637 - 0 mM Lactic Acid
25%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

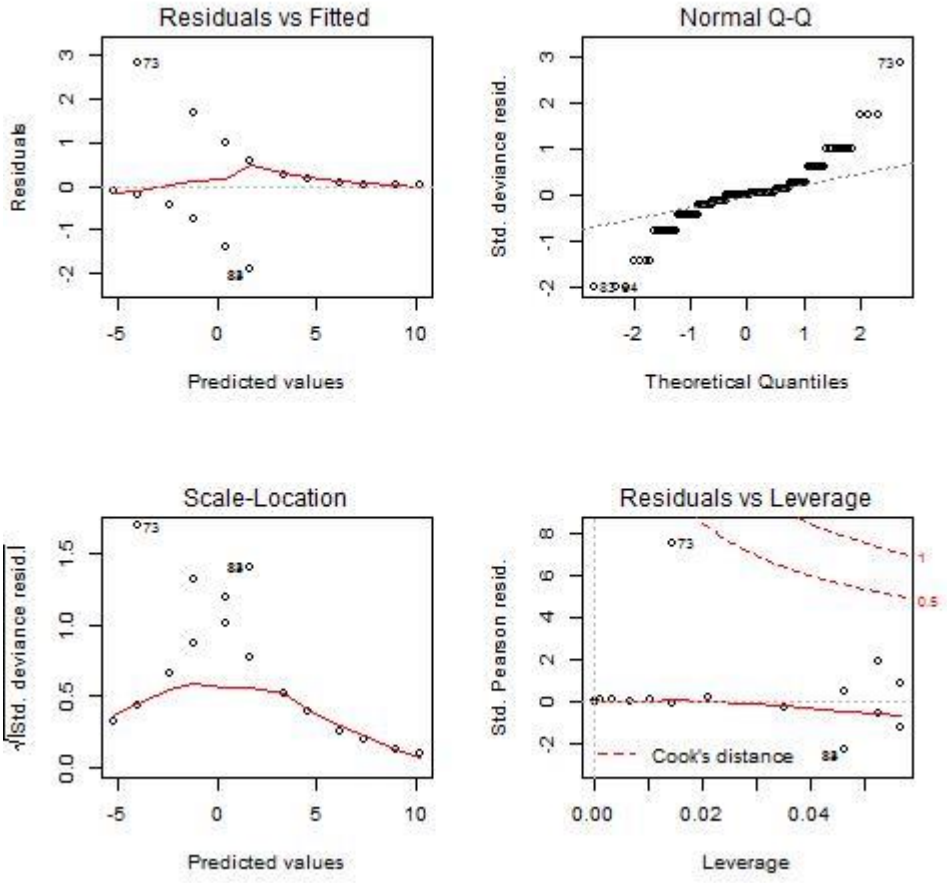

Escherichia coli EC1637 - 25 mM Lactic Acid
50%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

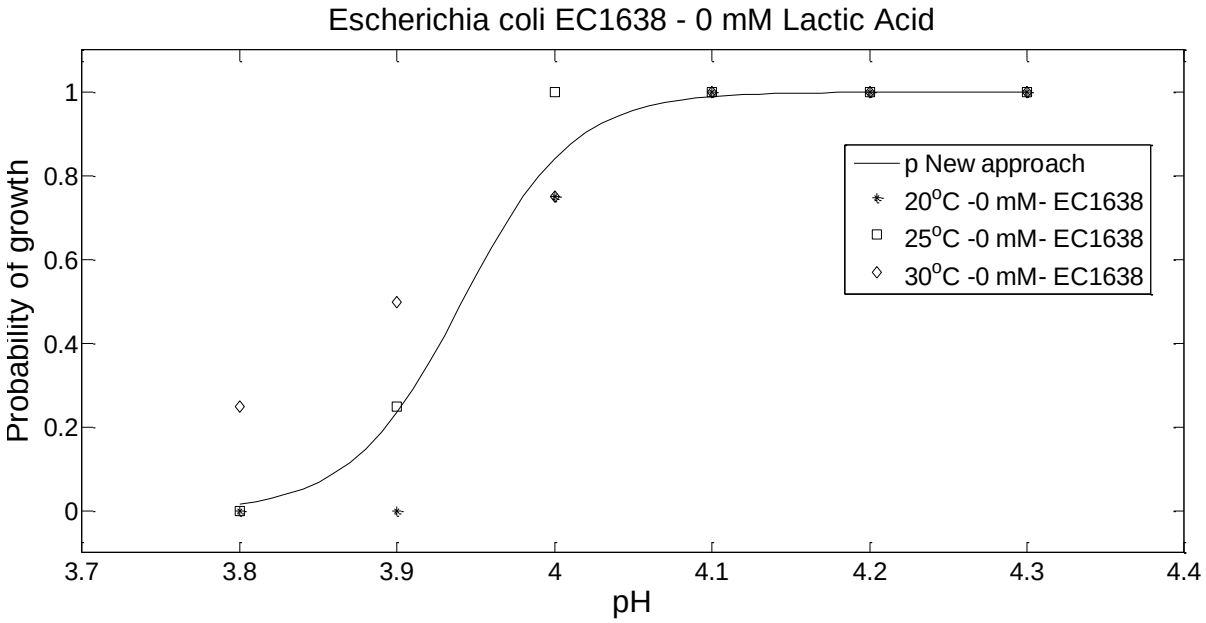
106. *E.coli* EC1638 Canine EPEC, 1012 (Prof. J. Mainil (Ulg, Liège, Belgium))

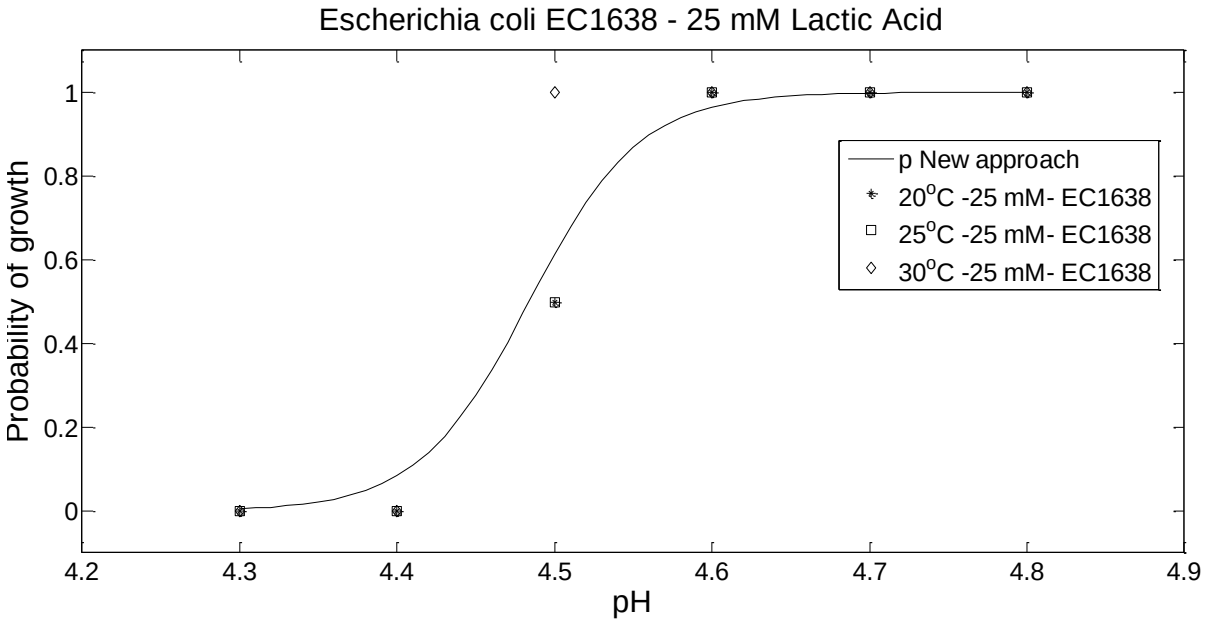
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-112.39	21.63	-5.20	0.00	-162.98	-76.70	0.00	0.00	0.00
pH	28.51	5.49	5.20	0.00	19.47	41.36	2.42E+12	2.85E+08	9.16E+17
LA	-0.62	0.12	-5.03	0.00	-0.91	-0.42	0.54	0.40	0.66

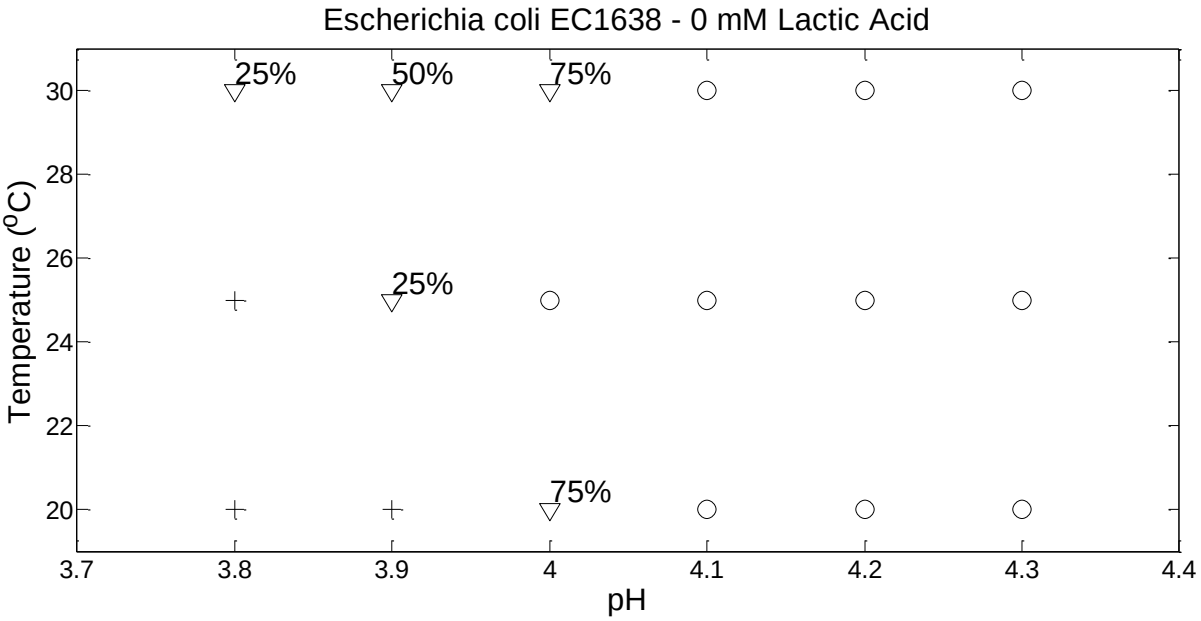
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	187.20	
pH	1	22.45	142	164.75	0.00
LA	1	109.75	141	55.00	0.00

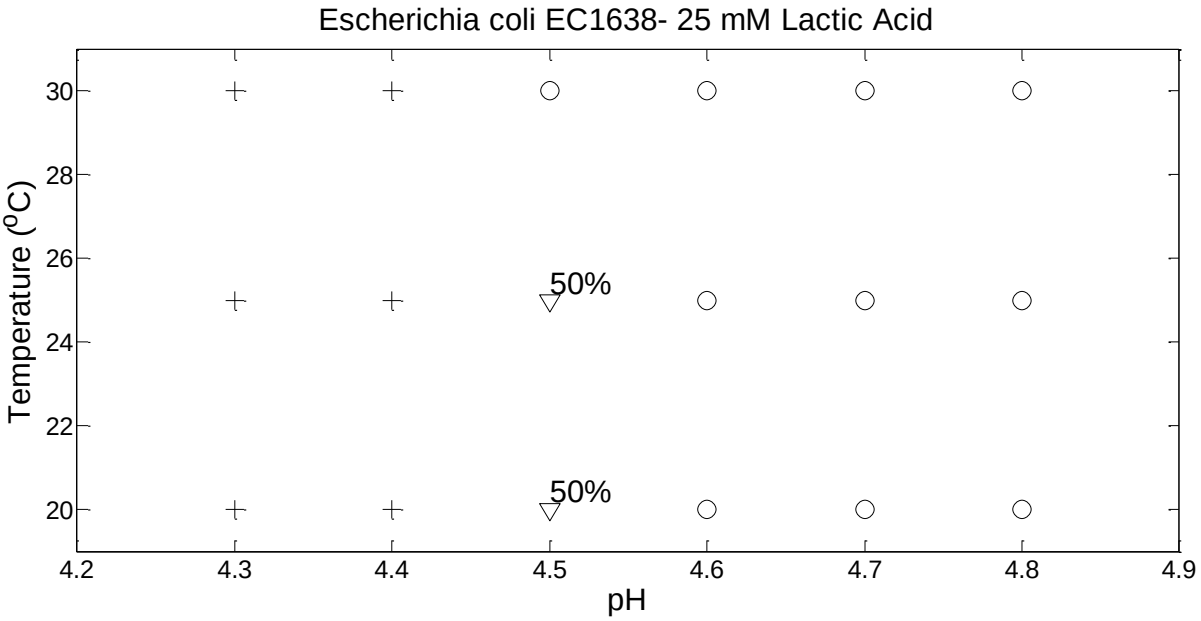
AIC	61.00
Likelihood Ratio	1.97E-29
Log-Likelihood	-27.50




Escherichia coli EC1638 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1638
25°C -0 mM- EC1638
30°C -0 mM- EC1638
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1638 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1638
25°C -25 mM- EC1638
30°C -25 mM- EC1638
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1638 - 0 mM Lactic Acid
25%
50%
75%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

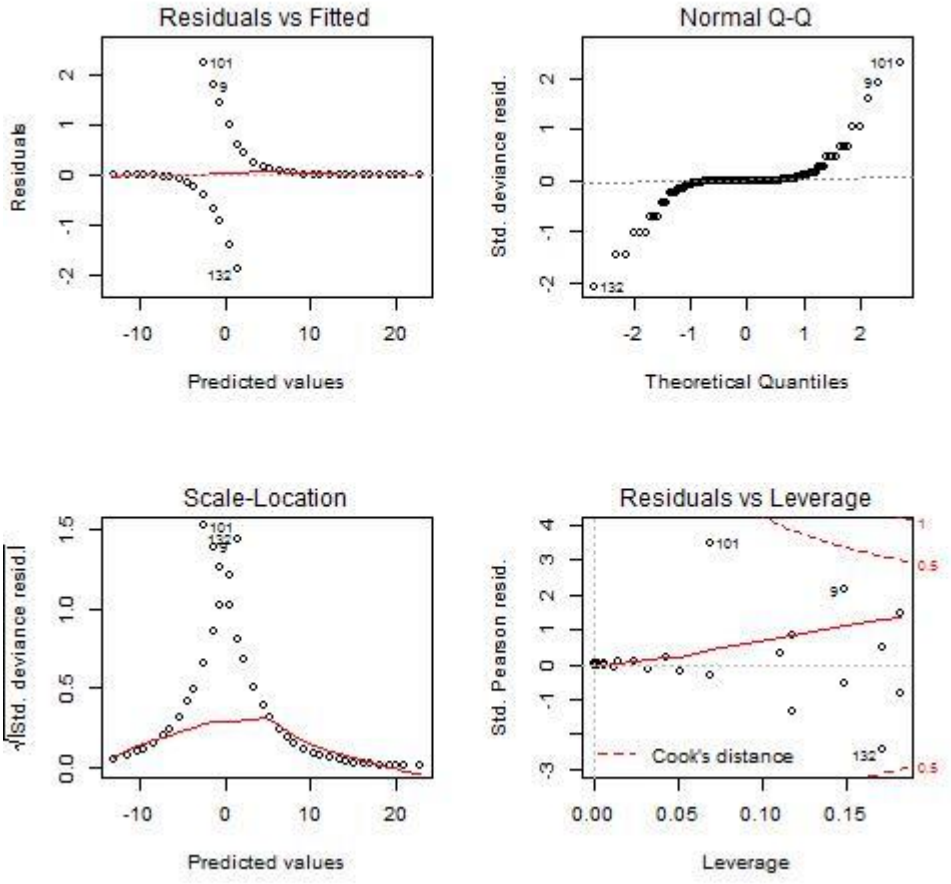

Escherichia coli EC1638- 25 mM Lactic Acid
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

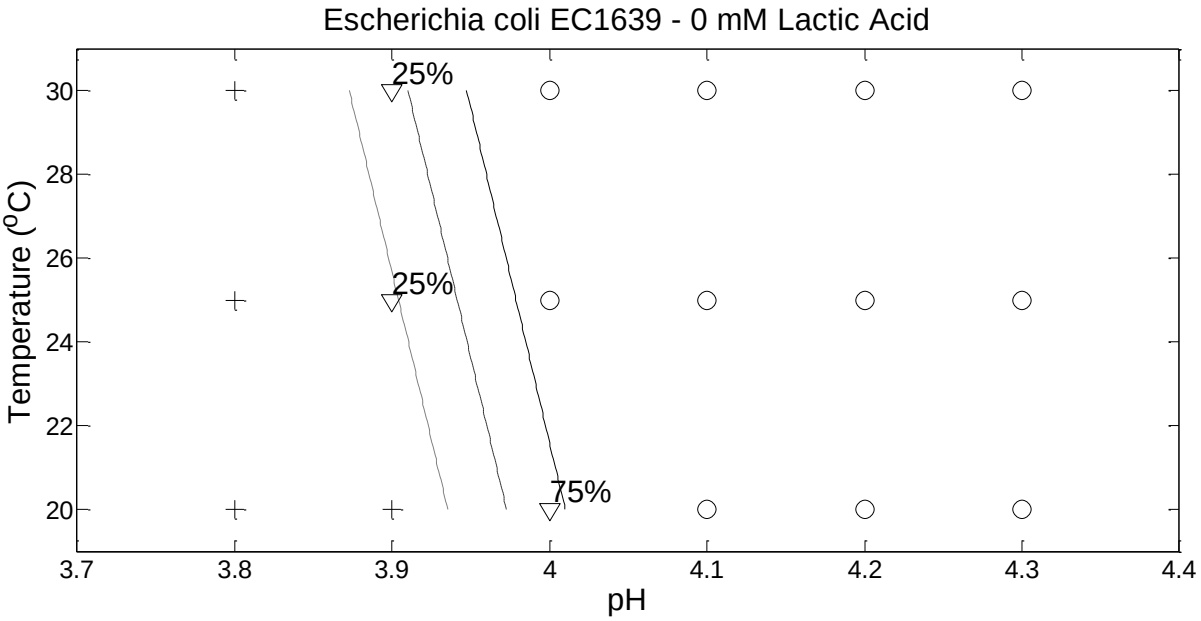
107. *E.coli* EC1639 Canine EPEC, 11653-1 (Prof. J. Mainil (Ulg, Liège, Belgium))

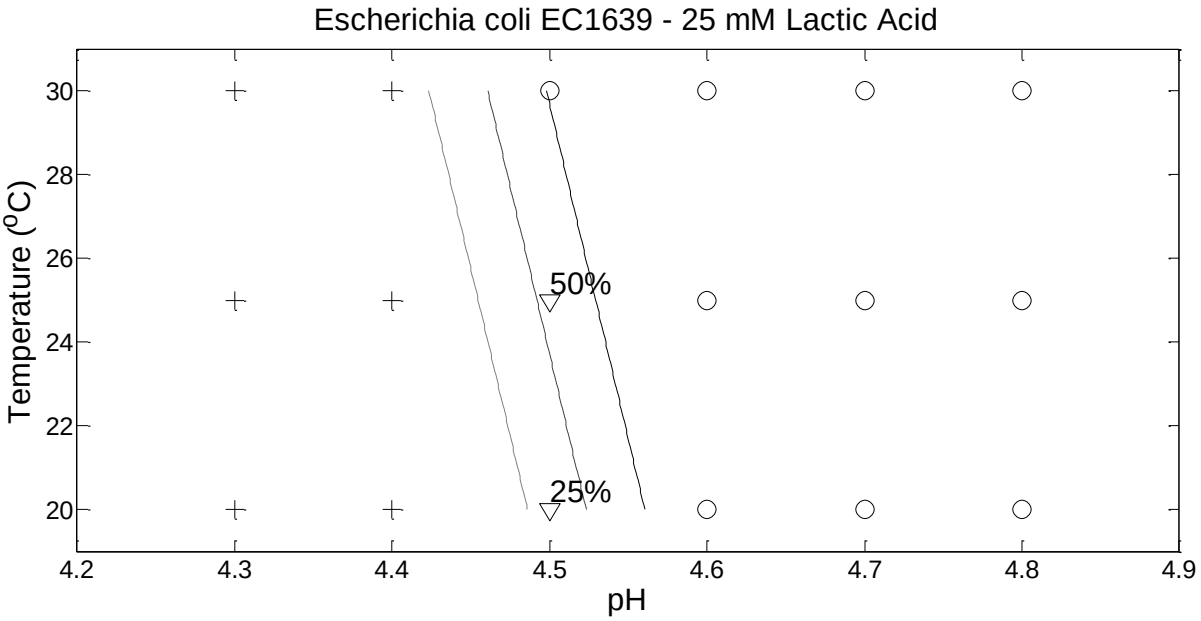
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-241.45	65.94	-3.66	0.00	-409.72	-142.10	0.00	0.00	0.00
pH	58.92	16.07	3.67	0.00	34.71	99.90	3.89E+25	1.19E+15	2.43E+43
LA	-1.30	0.36	-3.63	0.00	-2.21	-0.76	0.27	0.11	0.47
Temp	0.37	0.16	2.30	0.02	0.10	0.76	1.45	1.11	2.14

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	188.37	
pH	1	22.83	142	165.54	0.00
LA	1	130.79	141	34.75	0.00
Temp	1	7.97	140	26.78	0.00

AIC	34.78
Likelihood Ratio	8.34E-35
Log-Likelihood	-13.39




Escherichia coli EC1639 - 0 mM Lactic Acid
25%
25%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

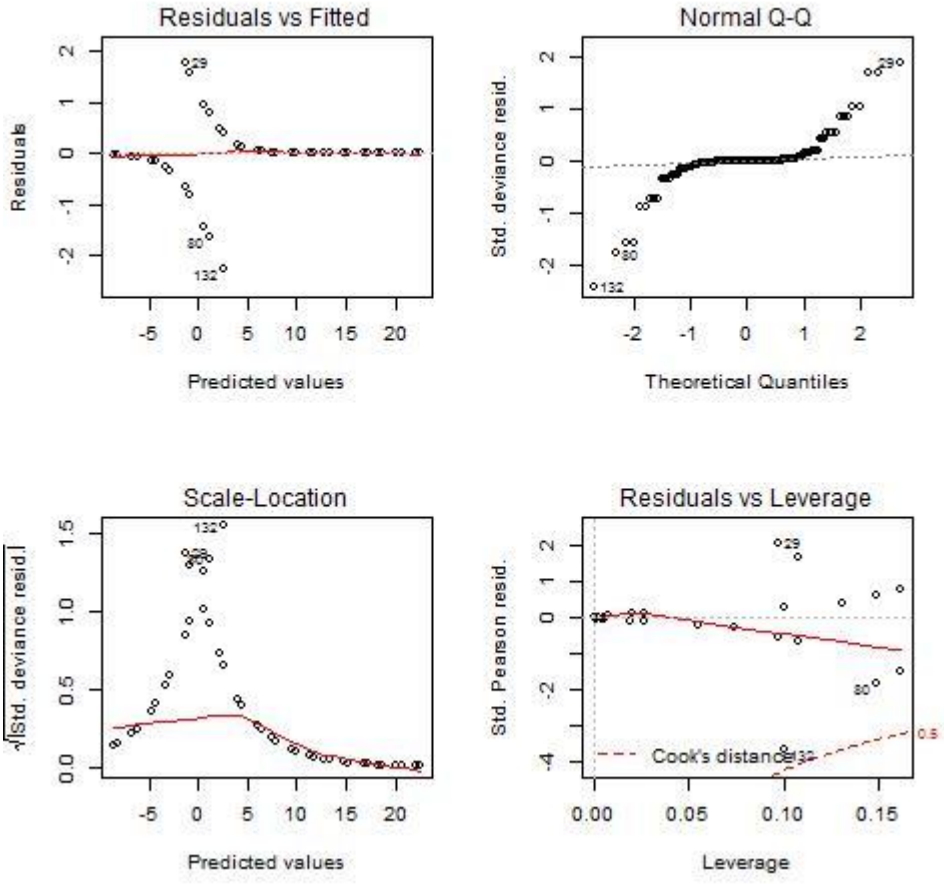

Escherichia coli EC1639 - 25 mM Lactic Acid
50%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

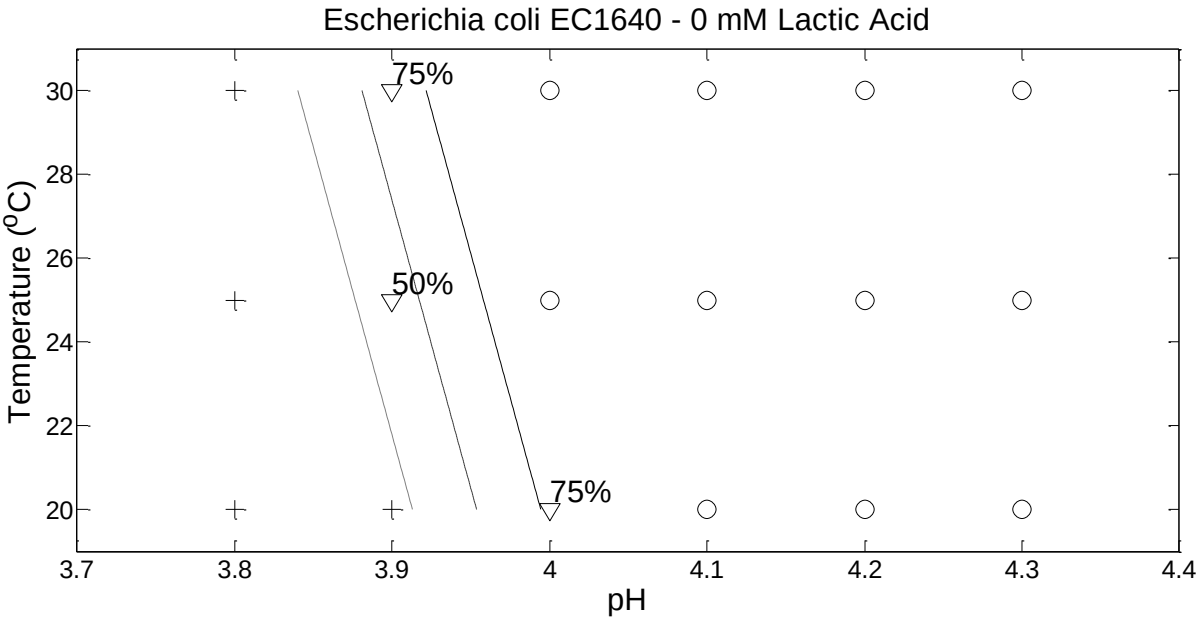
108. *E.coli* EC1640 Canine EPEC, 1004-1 (Prof. J. Mainil (Ulg, Liège, Belgium))

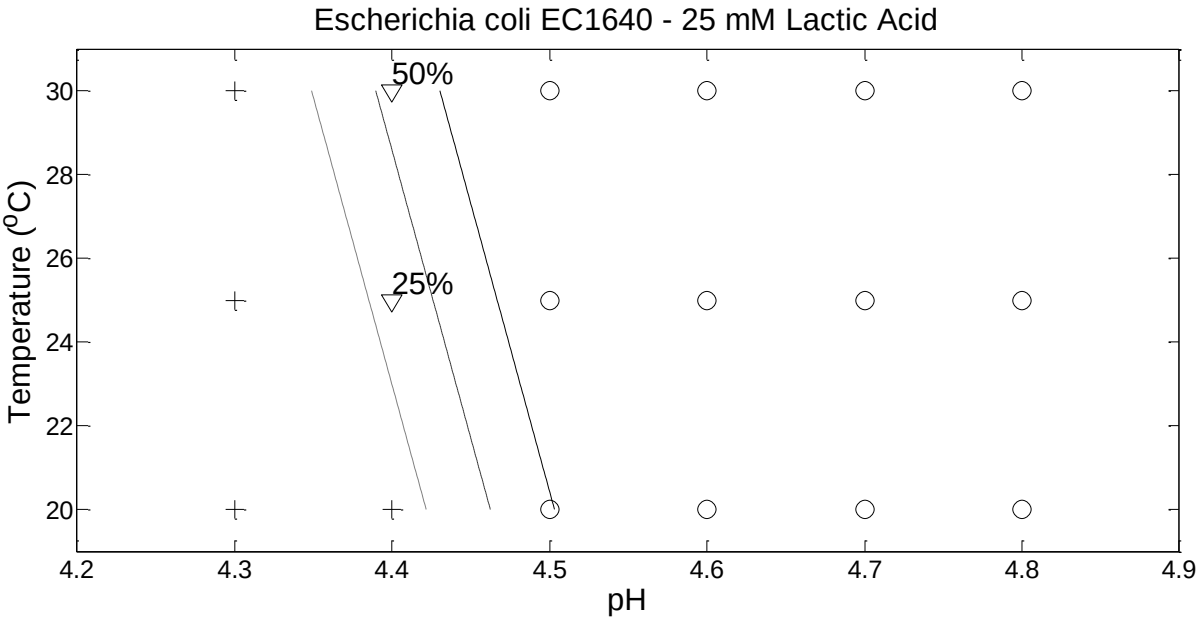
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-220.96	57.34	-3.85	0.00	-365.16	-132.98	0.00	0.00	0.00
pH	53.90	14.02	3.85	0.00	32.44	89.40	2.57E+23	1.22E+14	6.70E+38
LA	-1.10	0.29	-3.81	0.00	-1.82	-0.65	0.33	0.16	0.52
Temp	0.39	0.15	2.56	0.01	0.13	0.75	1.48	1.14	2.12

Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)	
NULL			143	172.04	
pH	1	27.07	142	144.97	0.00
LA	1	105.81	141	39.16	0.00
Temp	1	10.07	140	29.10	0.00

AIC	37.10
Likelihood Ratio	8.77E-31
Log-Likelihood	-14.55




Escherichia coli EC1640 - 0 mM Lactic Acid
75%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

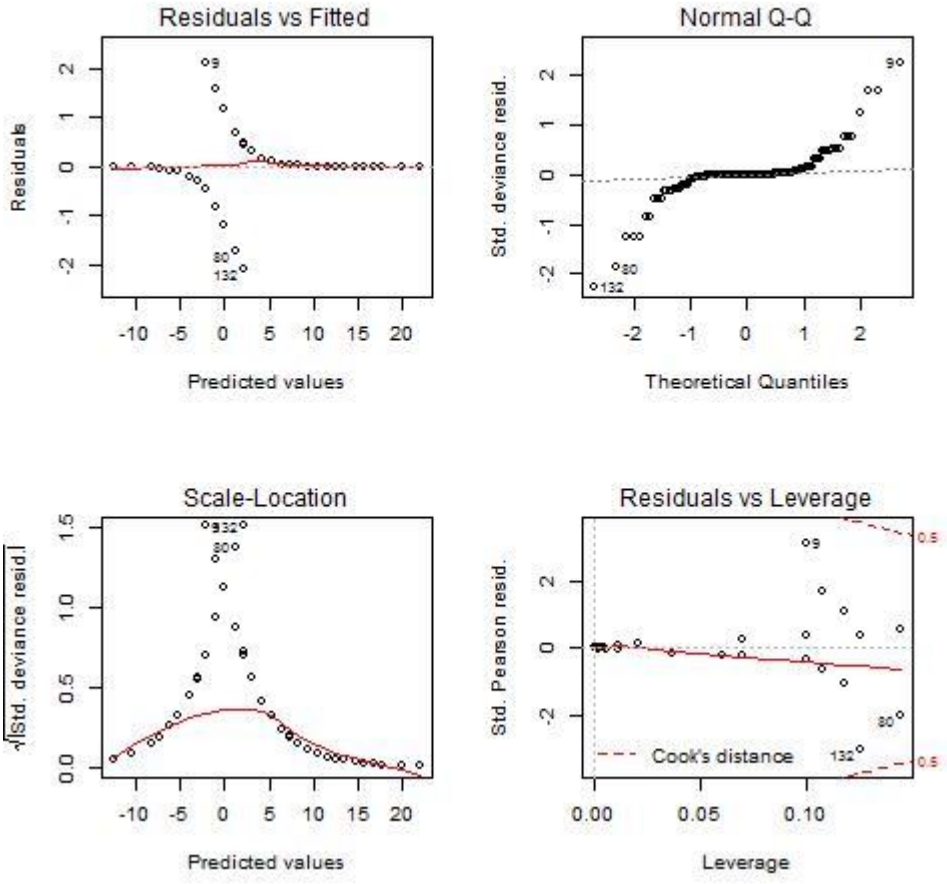

Escherichia coli EC1640 - 25 mM Lactic Acid
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

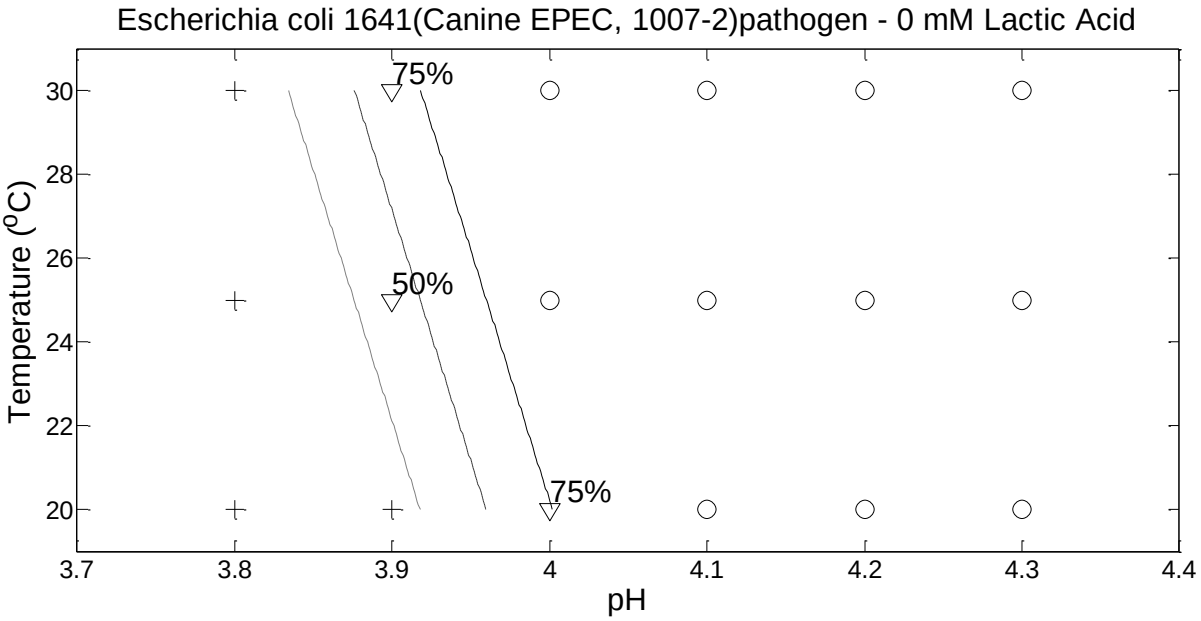
109. *E.coli* EC1641 Canine EPEC, 1007-2 (Prof. J. Mainil (Ulg, Liège, Belgium))

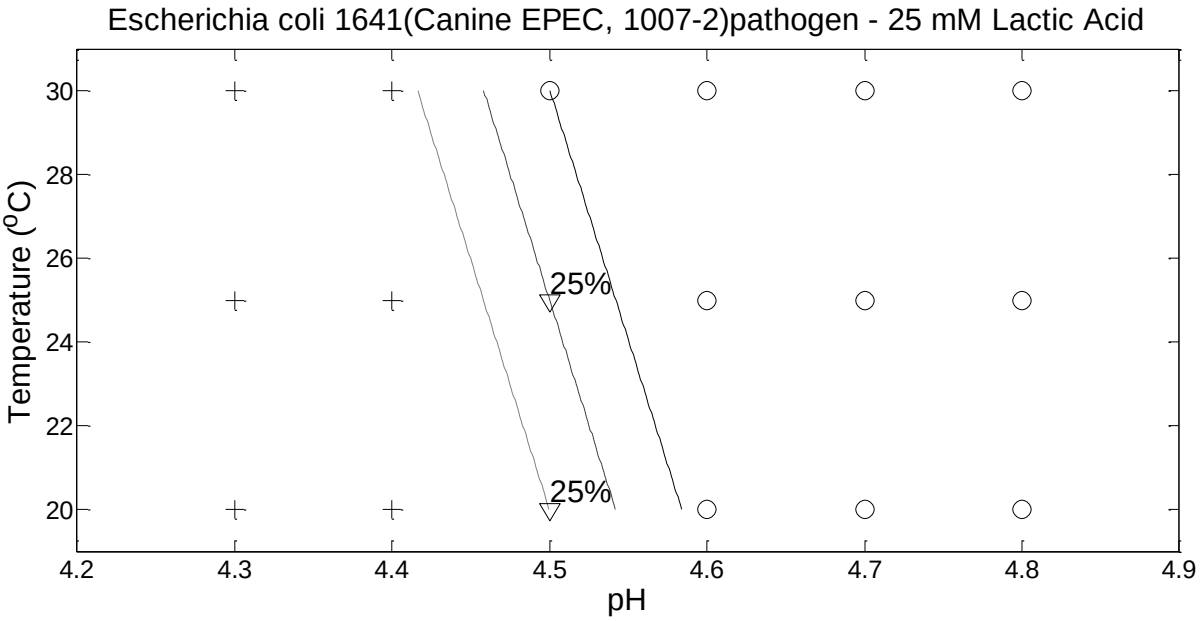
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-215.67	53.66	-4.02	0.00	-351.35	-132.35	0.00	0.00	0.00
pH	52.26	13.07	4.00	0.00	32.05	85.70	4.96E+22	8.29E+13	1.66E+37
LA	-1.22	0.31	-3.98	0.00	-2.00	-0.74	0.30	0.14	0.48
Temp	0.44	0.16	2.75	0.01	0.17	0.83	1.55	1.19	2.28

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	185.96	
pH	1	15.61	142	170.35	0.00
LA	1	128.49	141	41.86	0.00
Temp	1	12.72	140	29.14	0.00

AIC	37.14
Likelihood Ratio	8.89E-34
Log-Likelihood	-14.57




Escherichia coli 1641(Canine EPEC, 1007-2)pathogen - 0 mM Lactic Acid
75%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

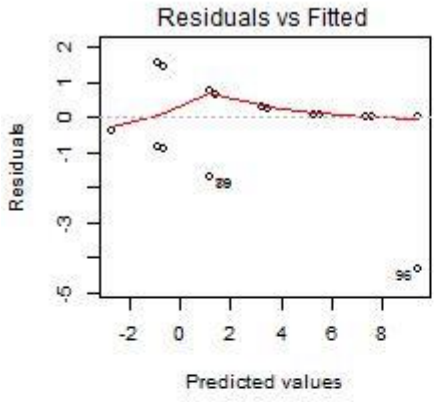

Escherichia coli 1641(Canine EPEC, 1007-2)pathogen - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

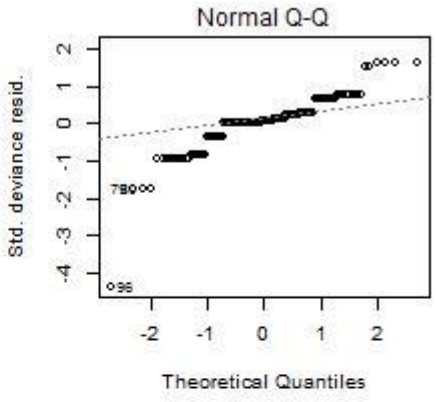
110. *E.coli* EC1642 Canine EPEC, 11646-1 (Prof. J. Mainil (Ulg, Liège, Belgium))

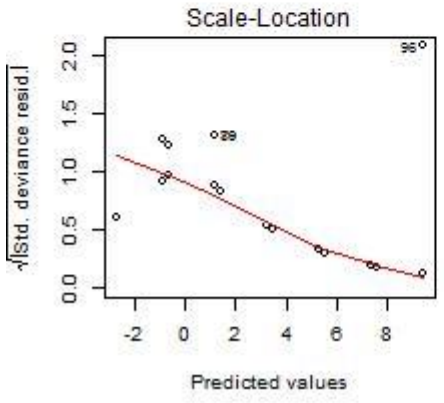
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-79.69	15.44	-5.16	0.00	-114.52	-53.41	0.00	0.00	0.00
pH	20.73	3.99	5.19	0.00	13.95	29.75	1.00E+09	1.14E+06	8.34E+12
LA	-0.49	0.09	-5.15	0.00	-0.70	-0.33	0.61	0.50	0.72

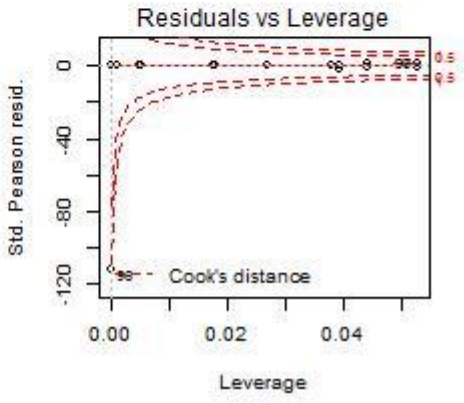
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	157.41	
pH	1	7.59	142	149.81	0.01
LA	1	80.73	141	69.08	0.00

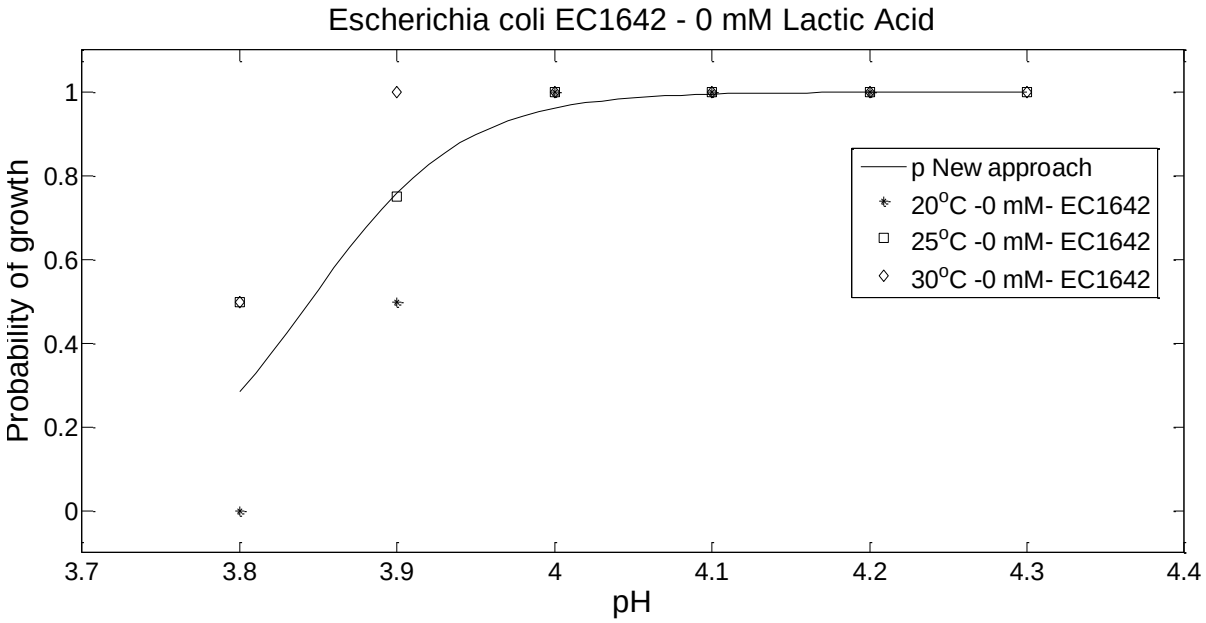
AIC	75.08
Likelihood Ratio	6.61E-20
Log-Likelihood	-34.54

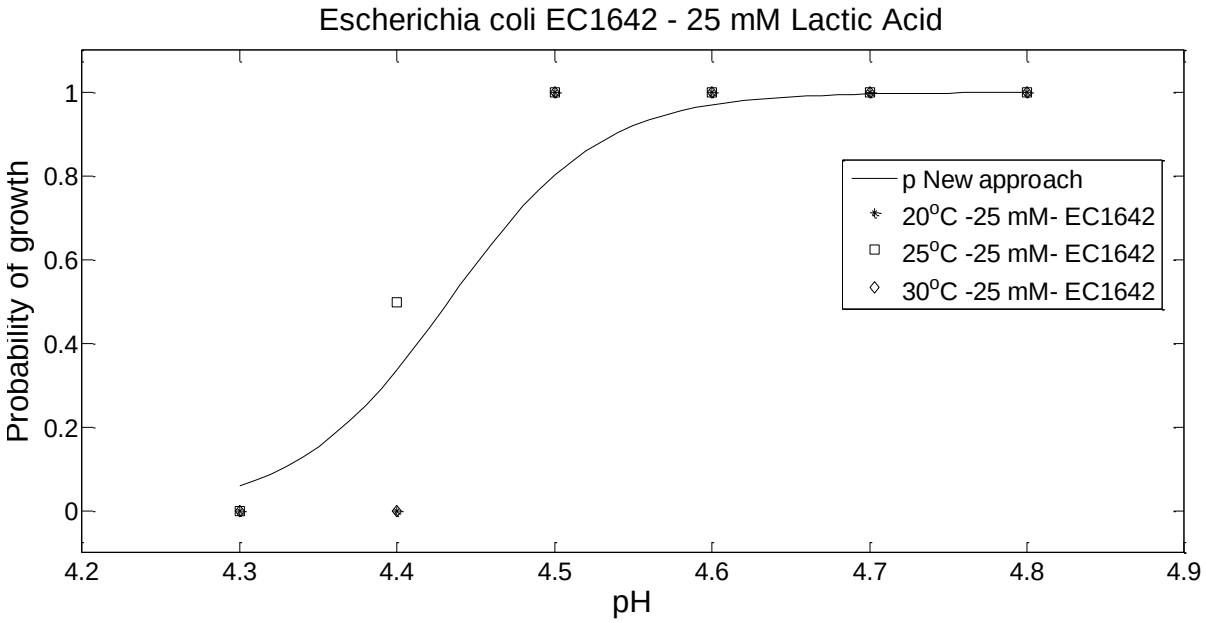


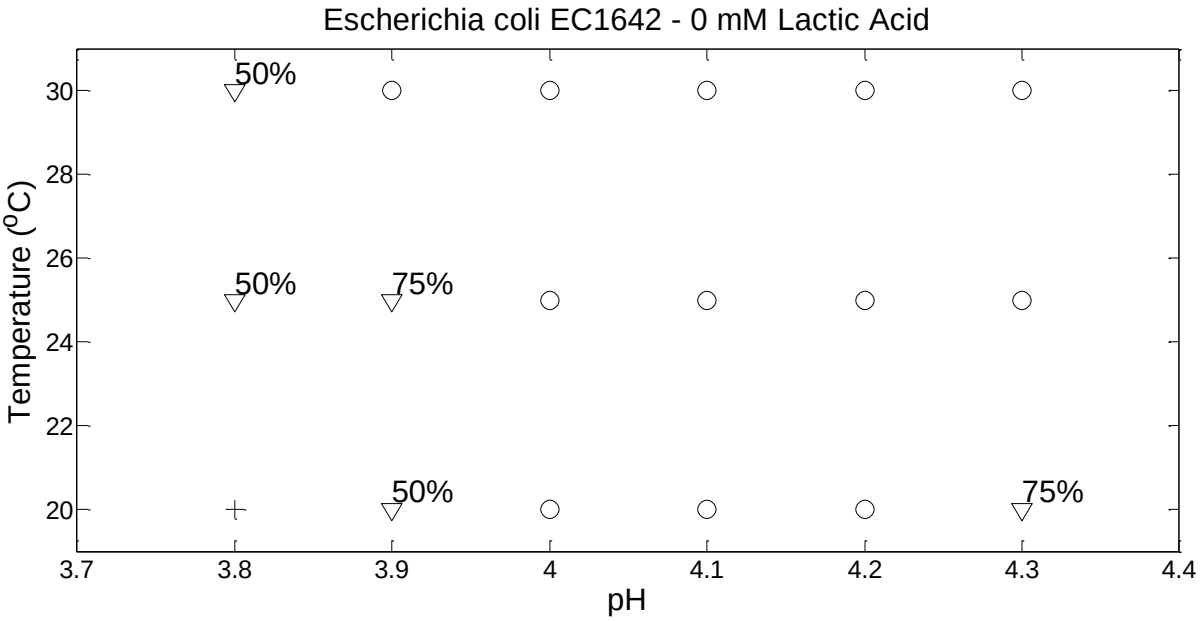


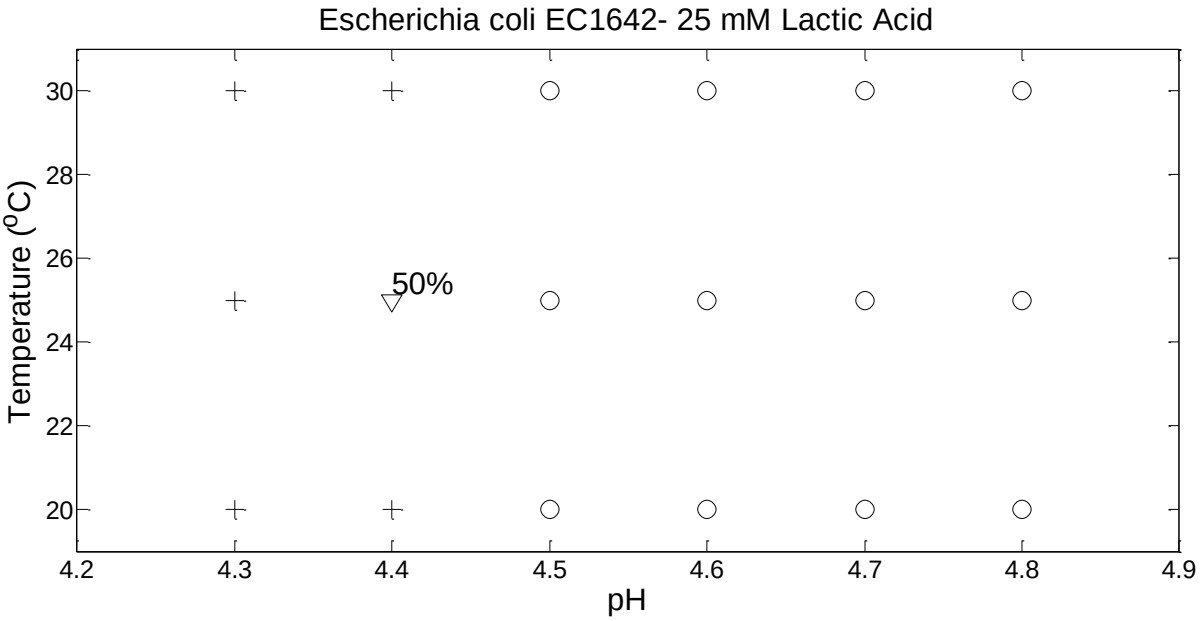





Escherichia coli EC1642 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1642
25°C -0 mM- EC1642
30°C -0 mM- EC1642
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1642 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1642
25°C -25 mM- EC1642
30°C -25 mM- EC1642
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1642 - 0 mM Lactic Acid
50%
50%
75%
50%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

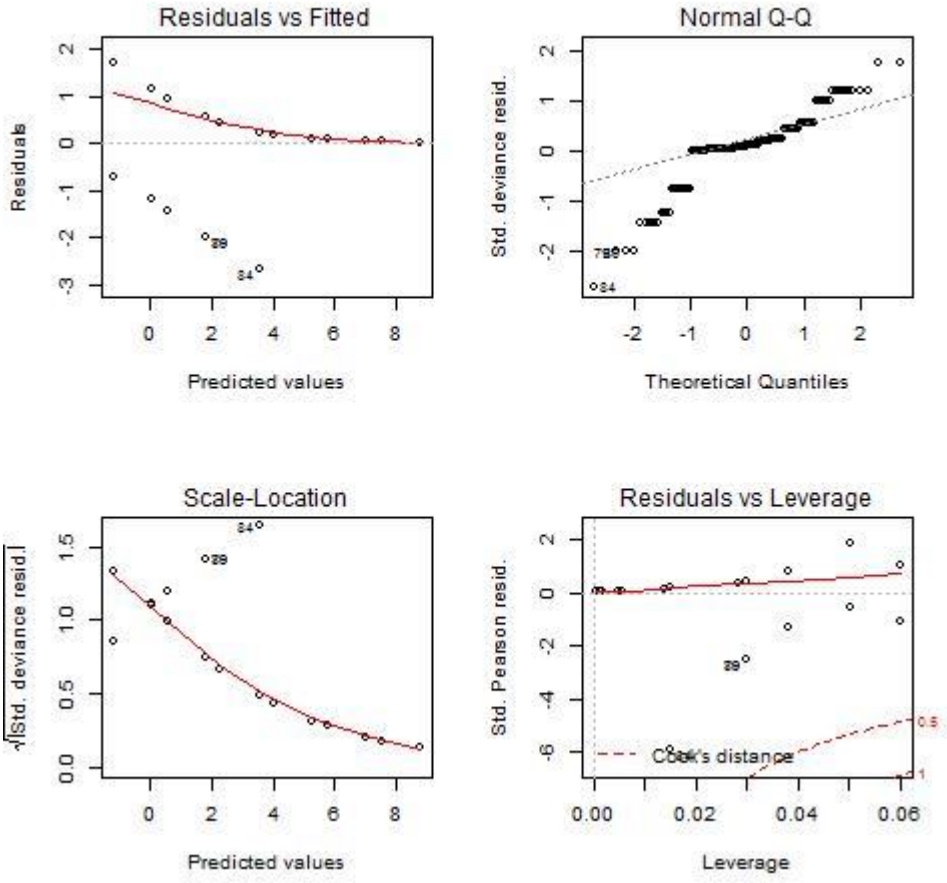

Escherichia coli EC1642- 25 mM Lactic Acid
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

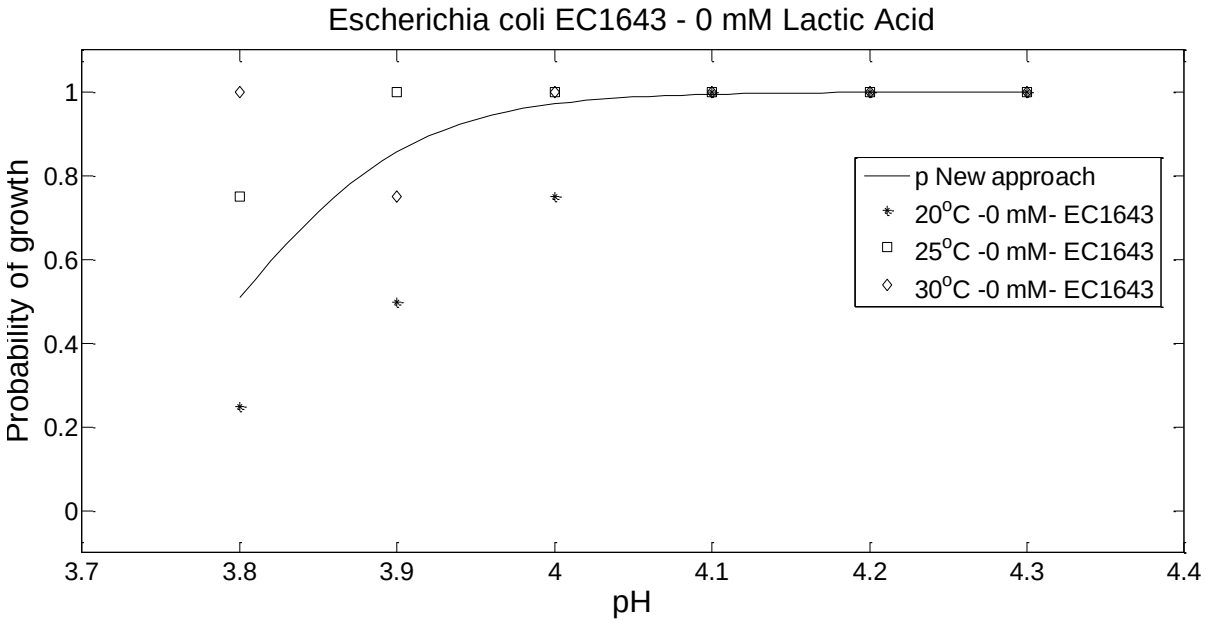
111. *E.coli* EC1643 Canine EPEC, 11647-3 (Prof. J. Mainil (Ulg, Liège, Belgium))

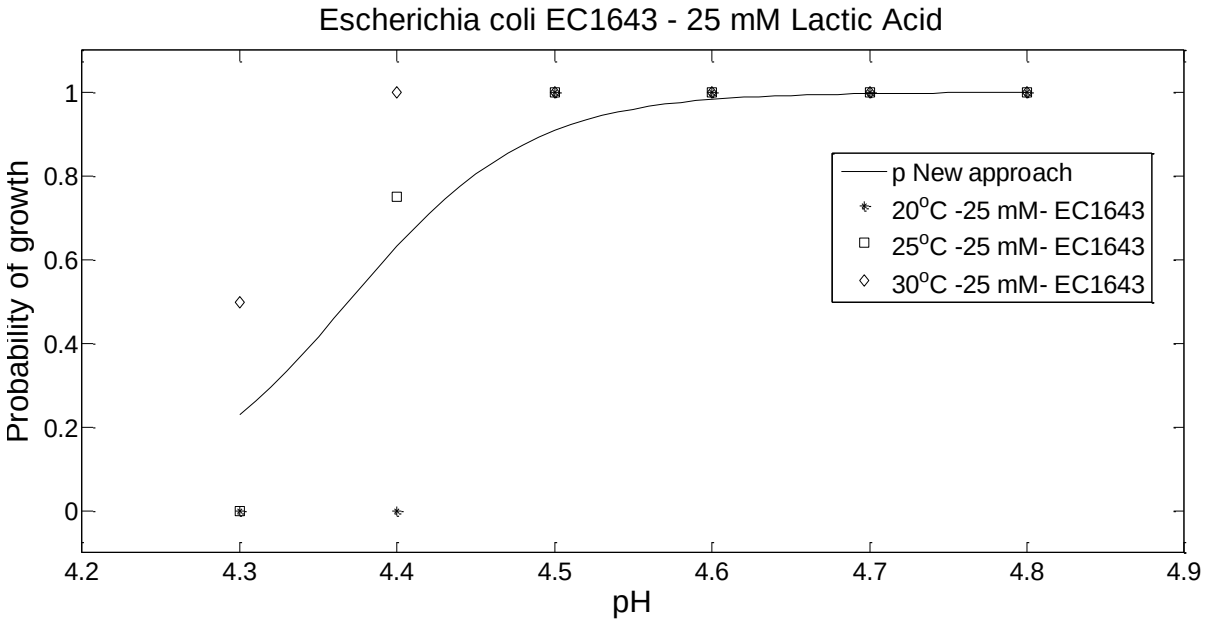
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-66.65	14.91	-4.47	0.00	-100.50	-41.41	0.00	0.00	0.00
pH	17.55	3.87	4.53	0.00	11.02	26.37	4.19E+07	6.09E+04	2.83E+11
LA	-0.40	0.09	-4.59	0.00	-0.60	-0.25	0.67	0.55	0.78

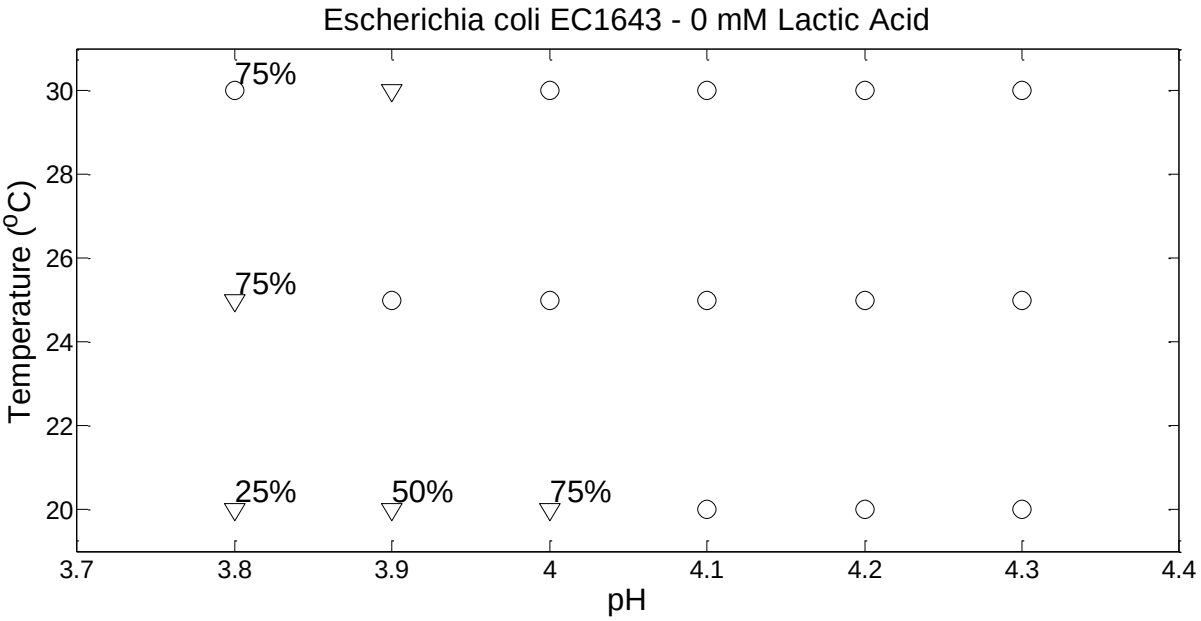
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	126.49	
pH	1	5.20	142	121.29	0.02
LA	1	52.11	141	69.18	0.00

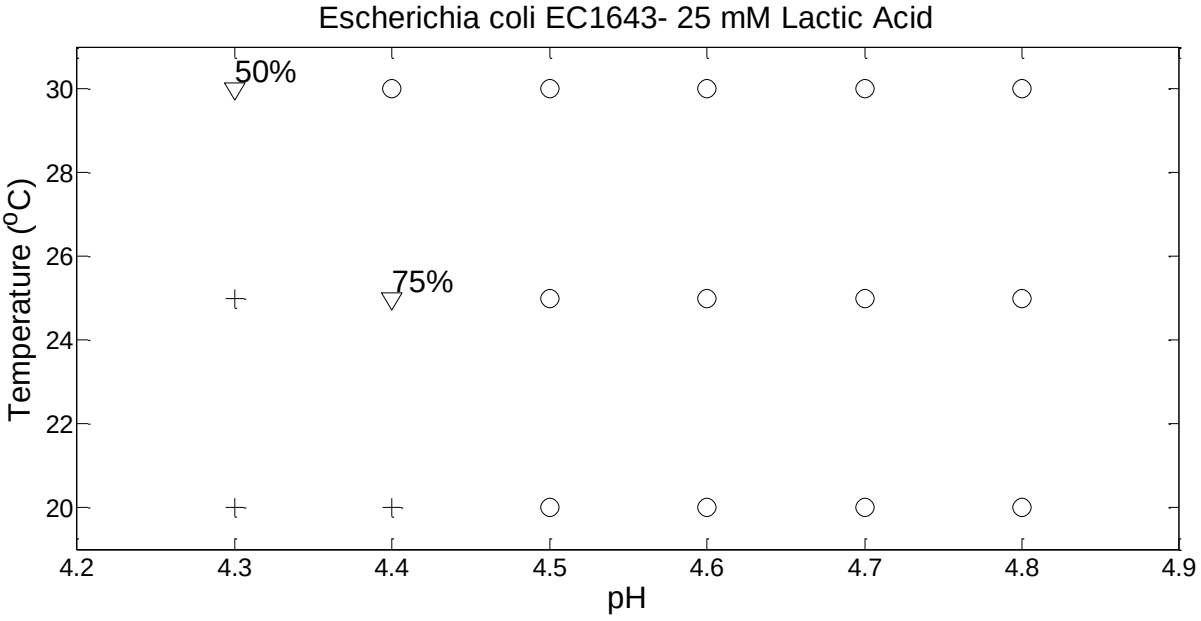
AIC	75.18
Likelihood Ratio	3.59E-13
Log-Likelihood	-34.59




Escherichia coli EC1643 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1643
25°C -0 mM- EC1643
30°C -0 mM- EC1643
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1643 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1643
25°C -25 mM- EC1643
30°C -25 mM- EC1643
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1643 - 0 mM Lactic Acid
75%
75%
25%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

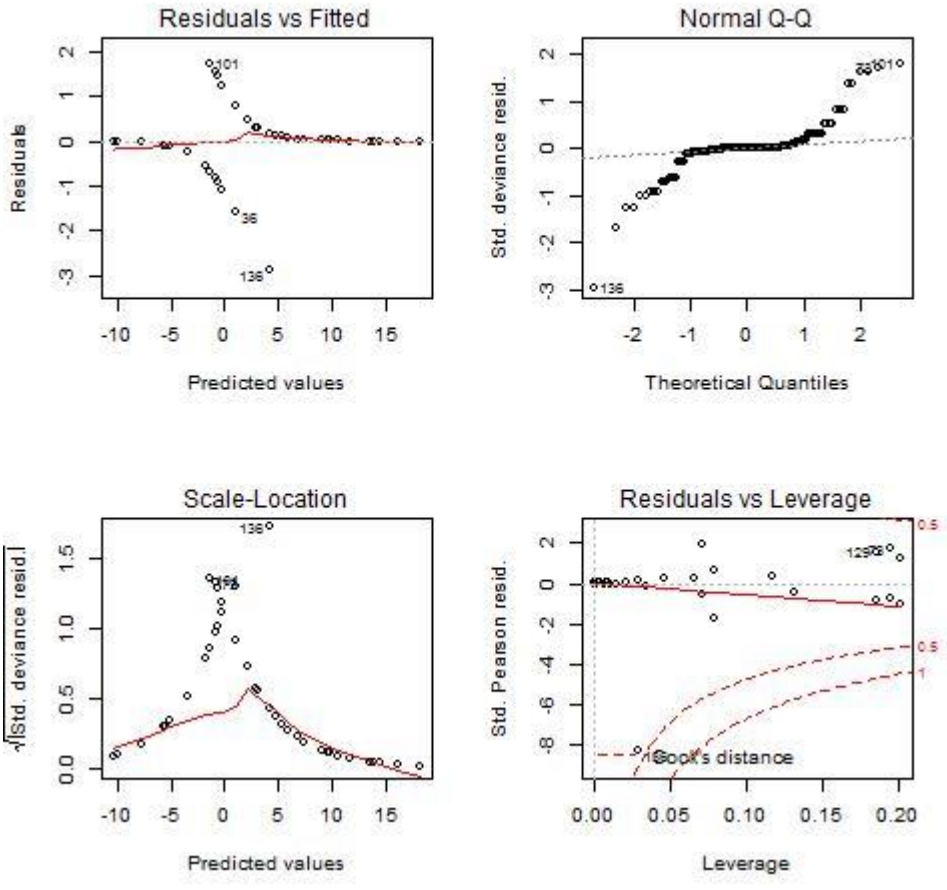

Escherichia coli EC1643- 25 mM Lactic Acid
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

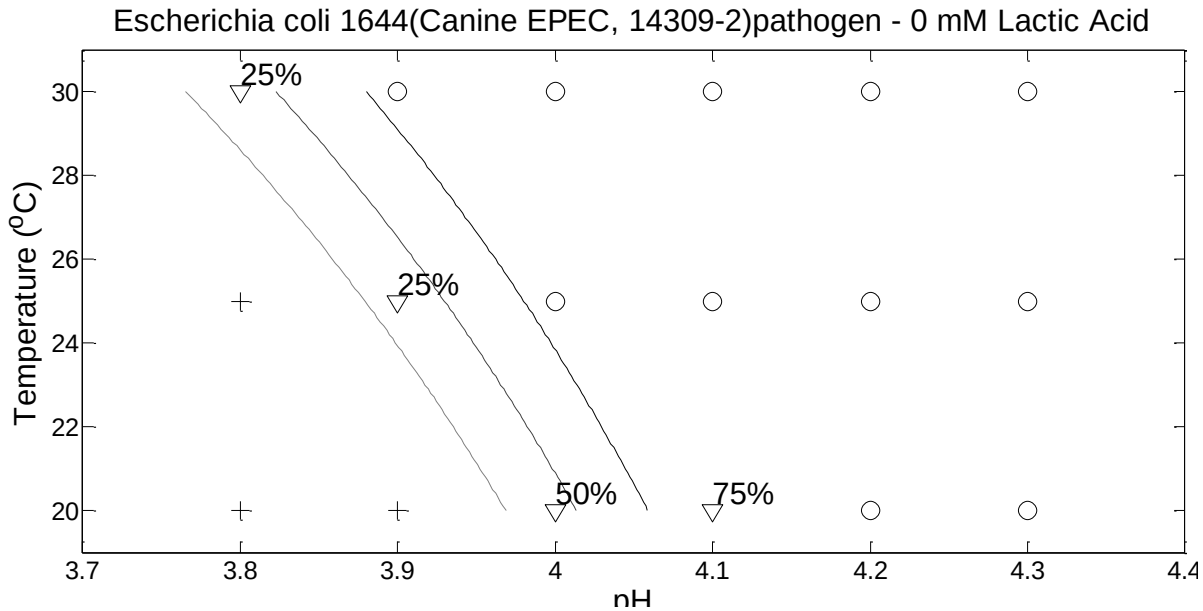
112. *E.coli* EC1644 Canine EPEC, 14309-2 (Prof. J. Mainil (Ulg, Liège, Belgium))

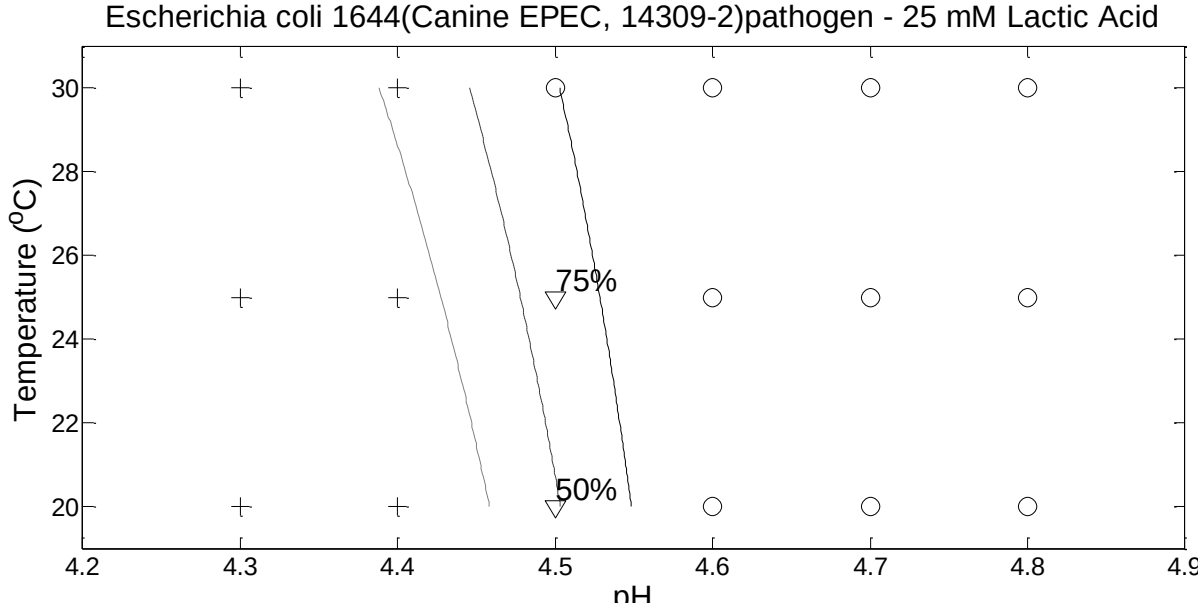
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-293.72	82.80	-3.55	0.00	-504.32	-162.29	0.00	0.00	0.00
pH	69.53	19.66	3.54	0.00	38.37	119.65	1.58E+30	4.61E+16	9.17E+51
LA	-0.95	0.25	-3.87	0.00	-1.60	-0.58	0.39	0.20	0.56
Temp	4.91	1.93	2.54	0.01	1.53	9.40	135.49	4.61	12130.30
pH:Temp	-1.04	0.44	-2.36	0.02	-2.05	-0.26	0.35	0.13	0.77

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	183.32	
pH	1	19.10	142	164.22	0.00
LA	1	101.51	141	62.71	0.00
Temp	1	18.31	140	44.39	0.00
pH:Temp	1	7.18	139	37.22	0.01

AIC	47.22
Likelihood Ratio	1.39E-30
Log-Likelihood	-18.61




Escherichia coli 1644(Canine EPEC, 14309-2)pathogen - 0 mM Lactic Acid
25%
25%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

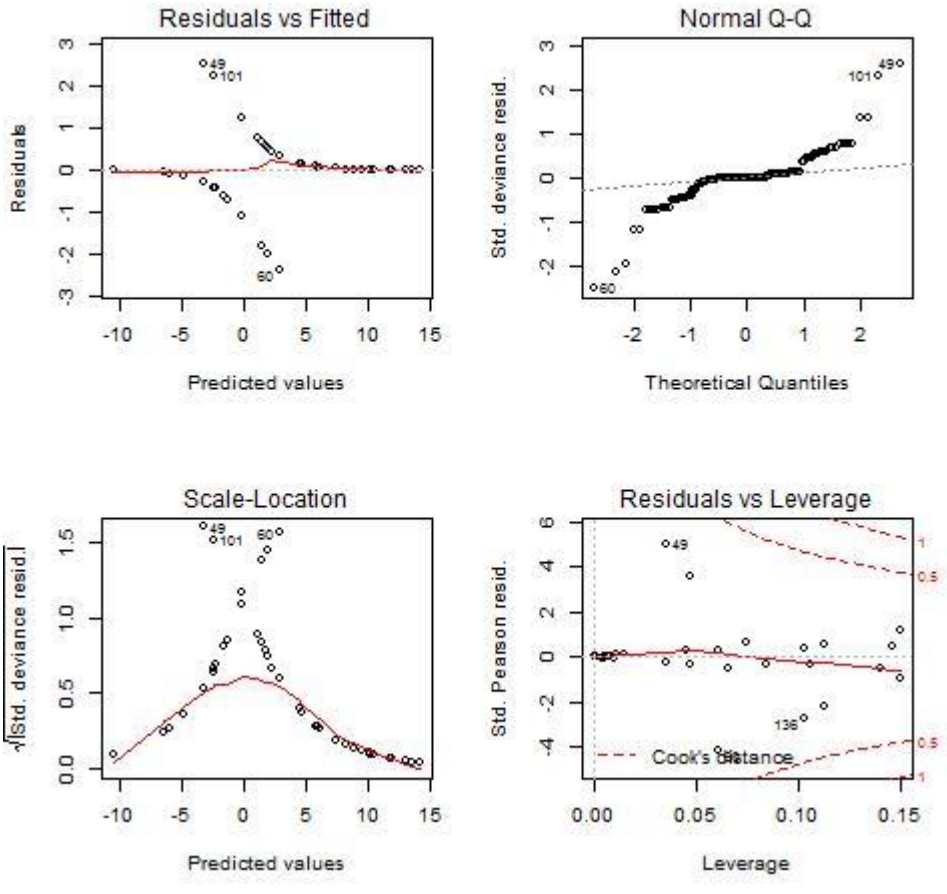

Escherichia coli 1644(Canine EPEC, 14309-2)pathogen - 25 mM Lactic Acid
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

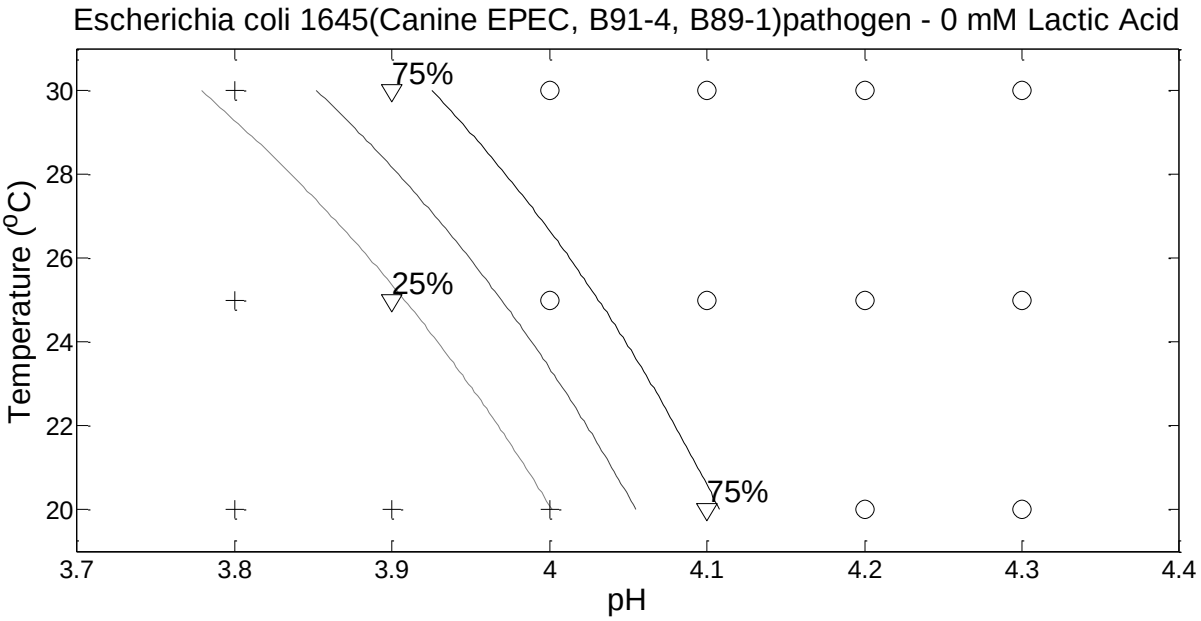
113. *E.coli* EC1645 Canine EPEC, B91-4 (Prof. J. Mainil (Ulg, Liège, Belgium))

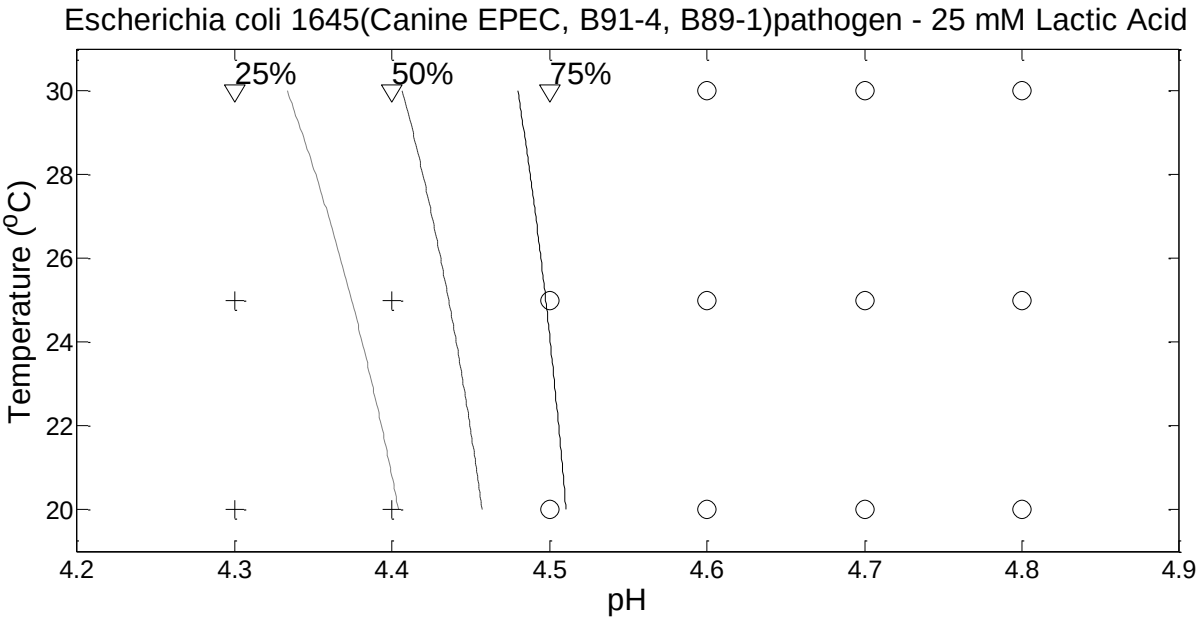
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-271.41	70.11	-3.87	0.00	-437.57	-154.17	0.00	0.00	0.00
pH	63.94	16.53	3.87	0.00	36.26	103.08	5.89E+27	5.58E+15	5.85E+44
LA	-0.67	0.14	-4.74	0.00	-0.99	-0.43	0.51	0.37	0.65
Temp	5.20	1.98	2.63	0.01	1.74	9.76	180.45	5.69	1.73E+04
pH:Temp	-1.13	0.46	-2.47	0.01	-2.19	-0.32	0.32	0.11	0.72

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	181.90	
pH	1	33.33	142	148.57	0.00
LA	1	80.89	141	67.68	0.00
Temp	1	16.47	140	51.21	0.00
pH:Temp	1	8.04	139	43.17	0.00

AIC	53.17
Likelihood Ratio	5.29E-29
Log-Likelihood	-21.59




Escherichia coli 1645(Canine EPEC, B91-4, B89-1)pathogen - 0 mM Lactic Acid
75%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

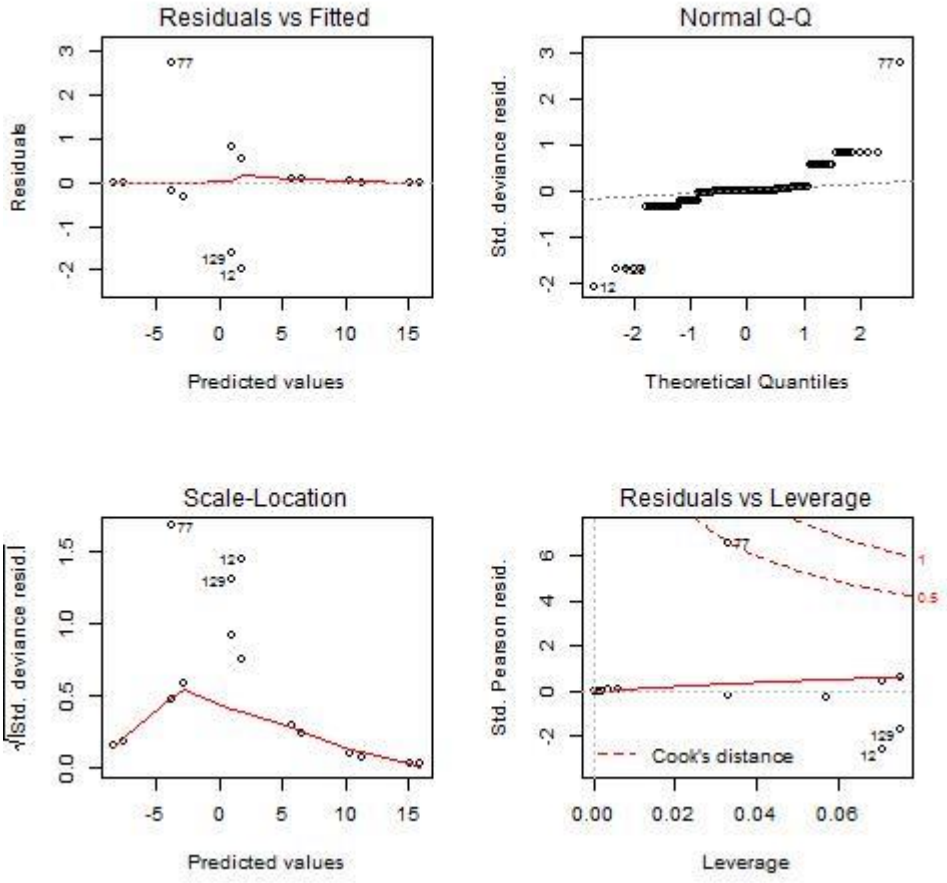

Escherichia coli 1645(Canine EPEC, B91-4, B89-1)pathogen - 25 mM Lactic Acid
25%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

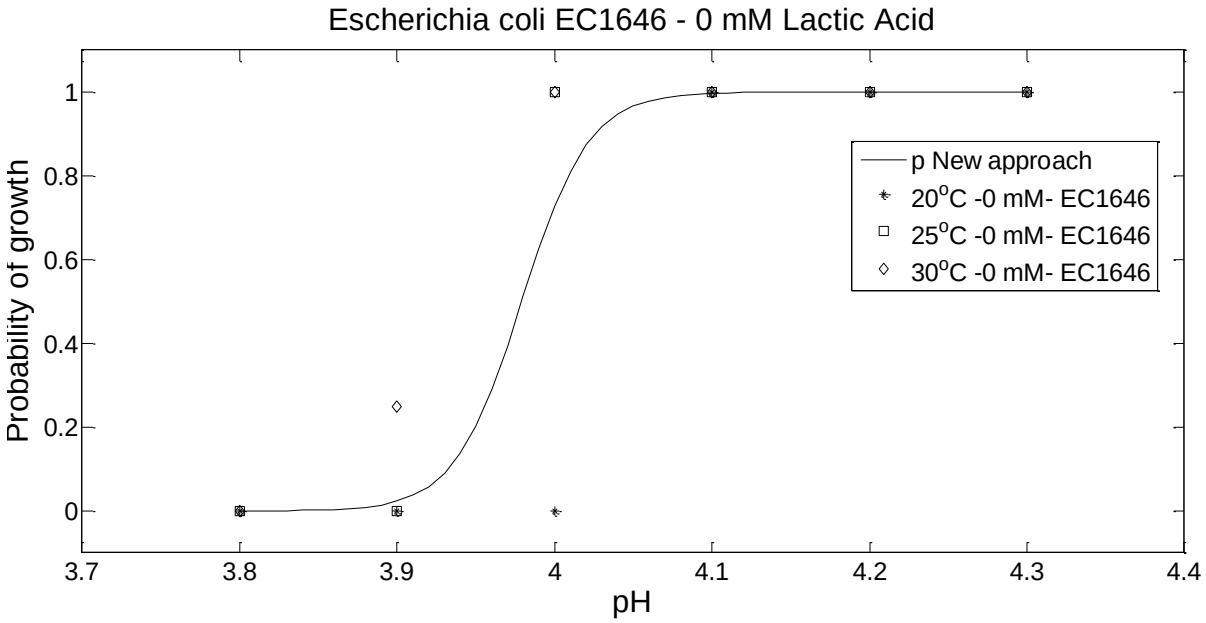
114. *E.coli* EC1646 Canine EPEC, B89-1(Prof. J. Mainil (Ulg, Liège, Belgium))

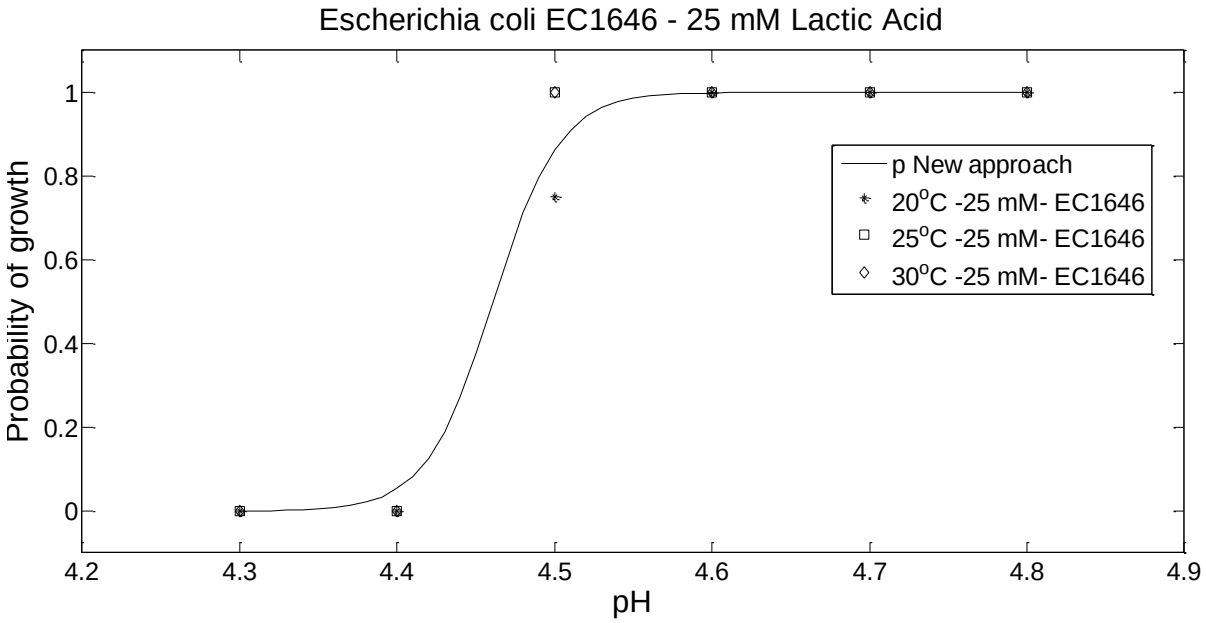
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-187.79	45.28	-4.15	0.00	-309.10	-118.02	0.00	0.00	0.00
pH	47.20	11.34	4.16	0.00	29.69	77.55	3.14E+20	7.84E+12	4.77E+33
LA	-0.91	0.22	-4.12	0.00	-1.51	-0.57	0.40	0.22	0.57

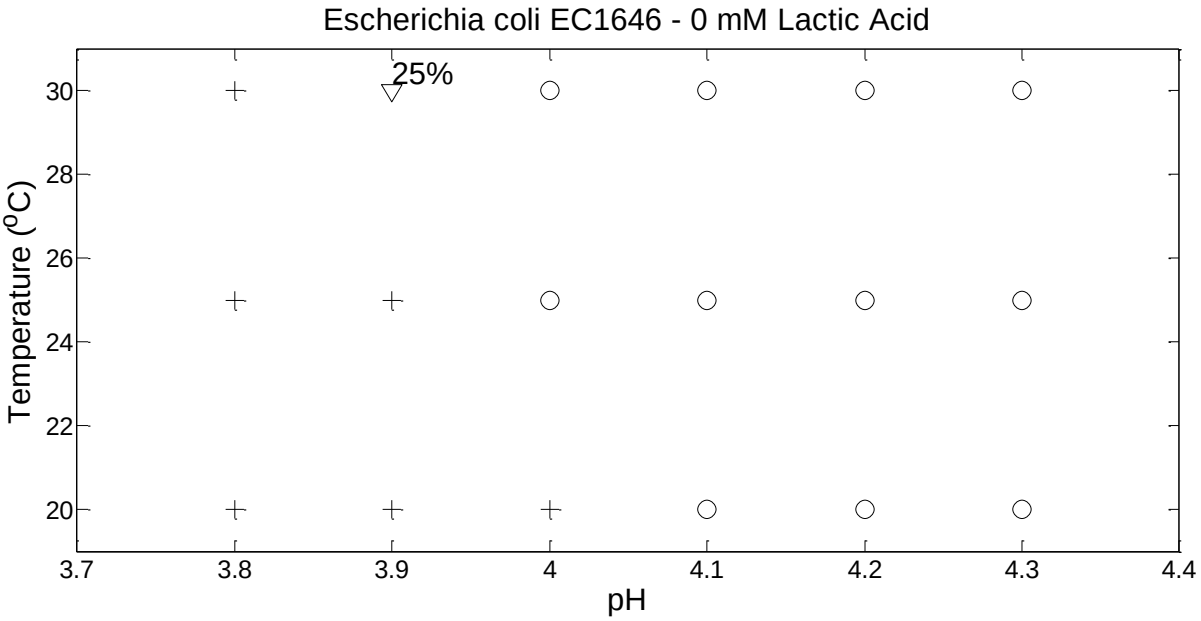
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	188.37	
pH	1	37.66	142	150.70	0.00
LA	1	118.51	141	32.19	0.00

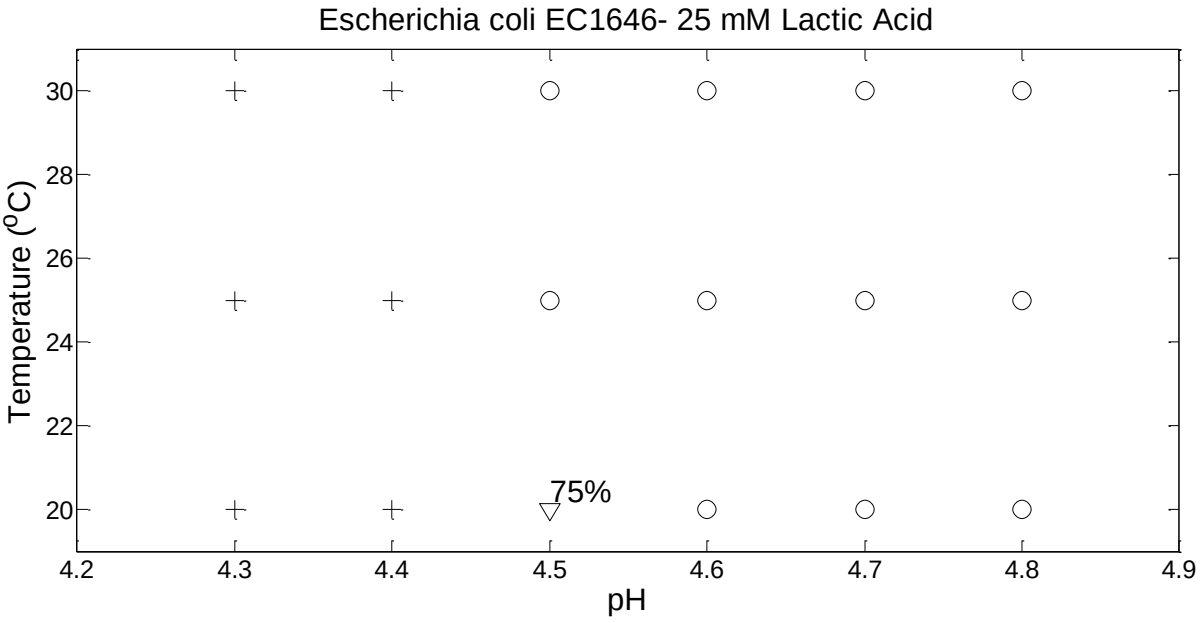
AIC	38.19
Likelihood Ratio	1.22E-34
Log-Likelihood	-16.10




Escherichia coli EC1646 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- EC1646
25°C -0 mM- EC1646
30°C -0 mM- EC1646
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli EC1646 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- EC1646
25°C -25 mM- EC1646
30°C -25 mM- EC1646
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli EC1646 - 0 mM Lactic Acid
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

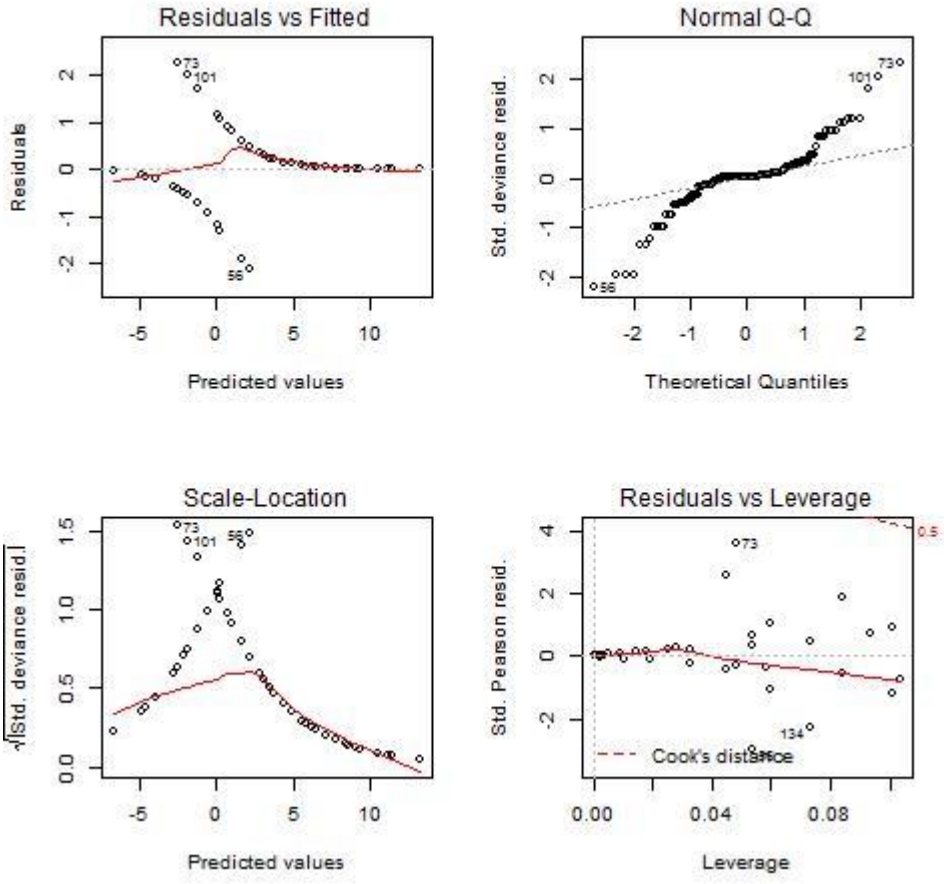

Escherichia coli EC1646- 25 mM Lactic Acid
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

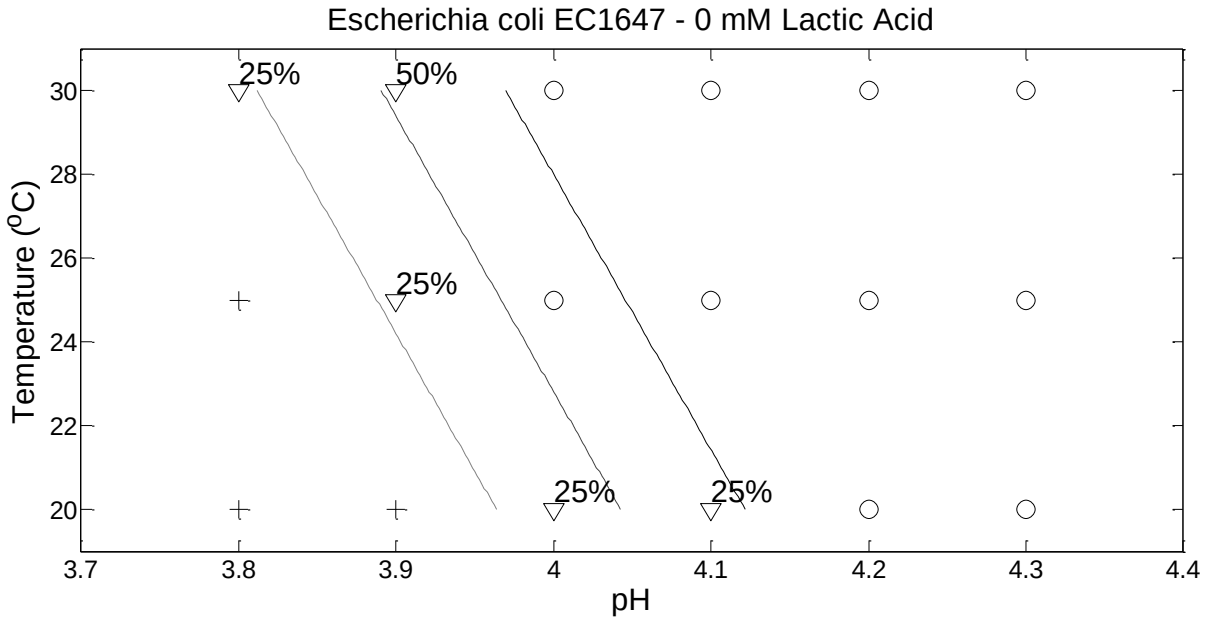
115. *E.coli* EC1647 Canine EPEC, B92-1 (Prof. J. Mainil (Ulg, Liège, Belgium))

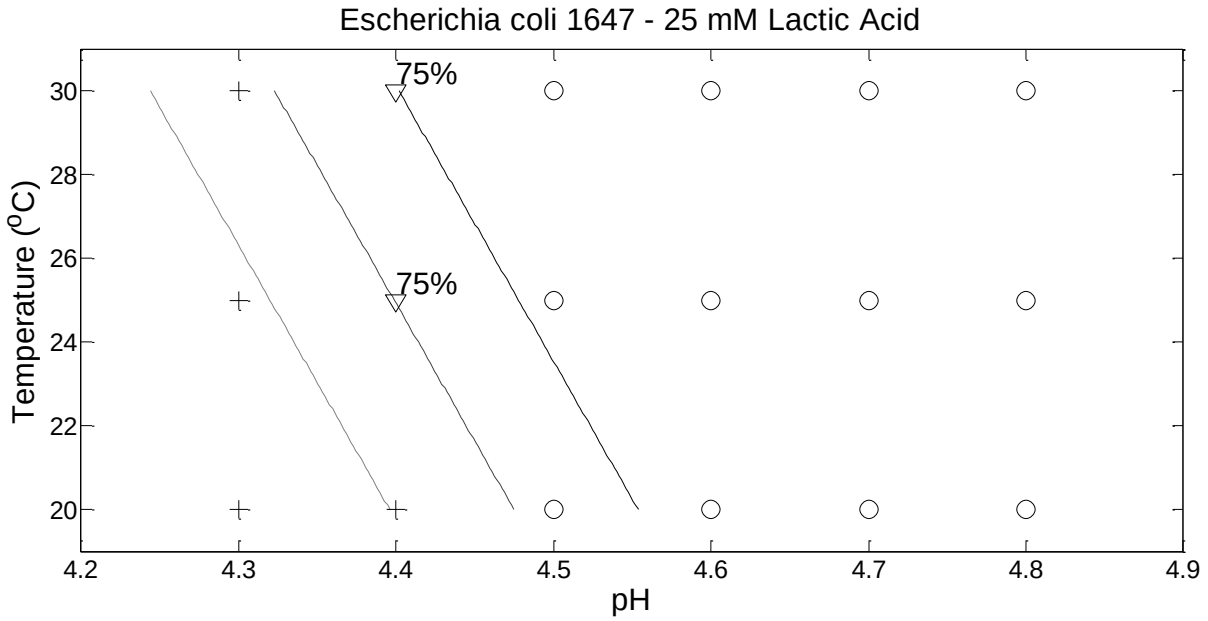
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-121.03	24.34	-4.97	0.00	-178.33	-81.06	0.00	0.00	0.00
pH	27.84	5.60	4.98	0.00	18.64	40.98	1.24E+12	1.24E+08	6.28E+17
LA	-0.48	0.10	-4.75	0.00	-0.72	-0.31	0.62	0.49	0.73
Temp	0.42	0.12	3.61	0.00	0.22	0.69	1.53	1.25	1.99

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	177.26	
pH	1	40.01	142	137.26	0.00
LA	1	61.11	141	76.15	0.00
Temp	1	21.24	140	54.91	0.00

AIC	62.91
Likelihood Ratio	2.41E-26
Log-Likelihood	-27.46




Escherichia coli EC1647 - 0 mM Lactic Acid
25%
50%
25%
25%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

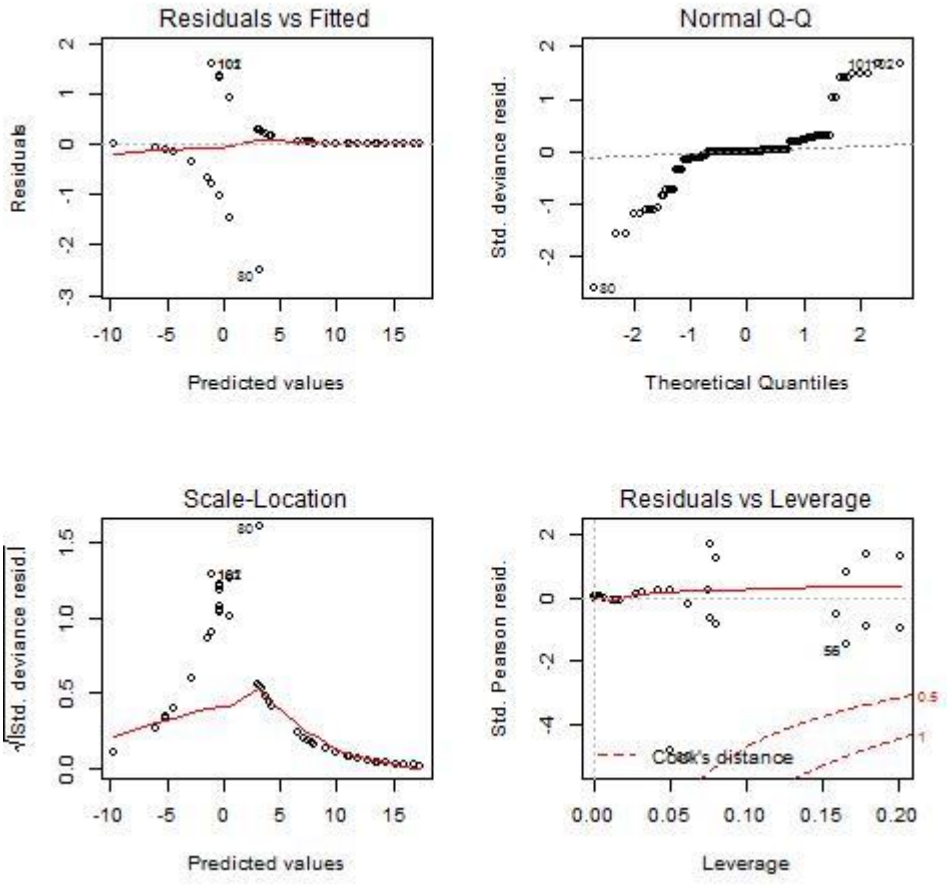

Escherichia coli 1647 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

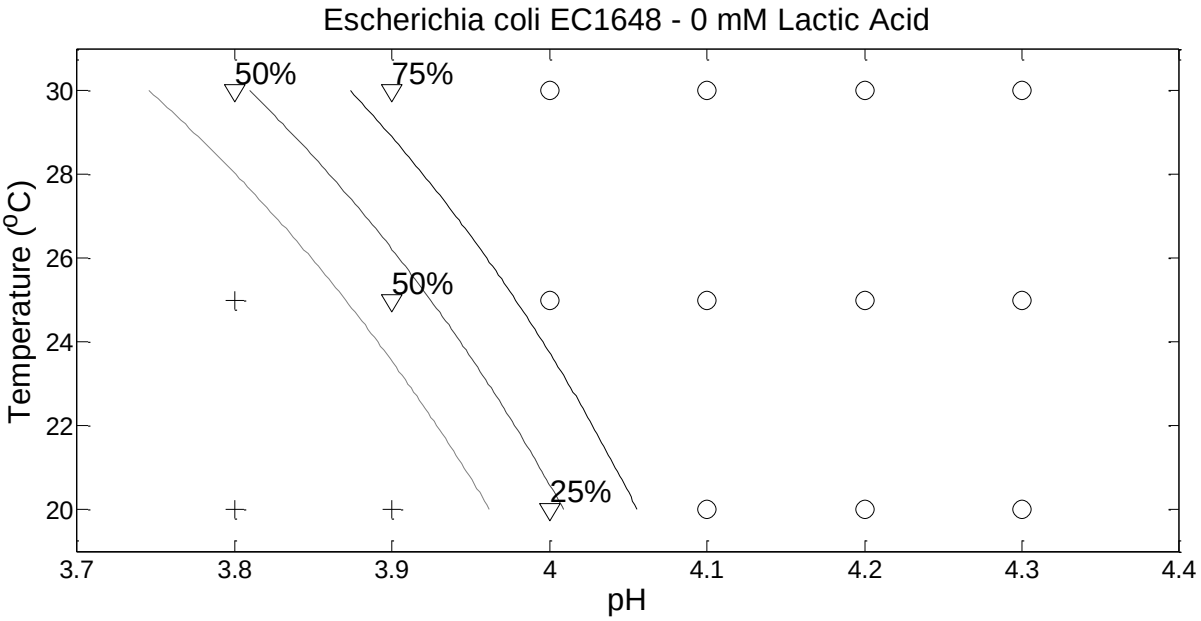
116. *E.coli* EC1648 Feline EPEC, 43750 II (Prof. J. Mainil (Ulg, Liège, Belgium))

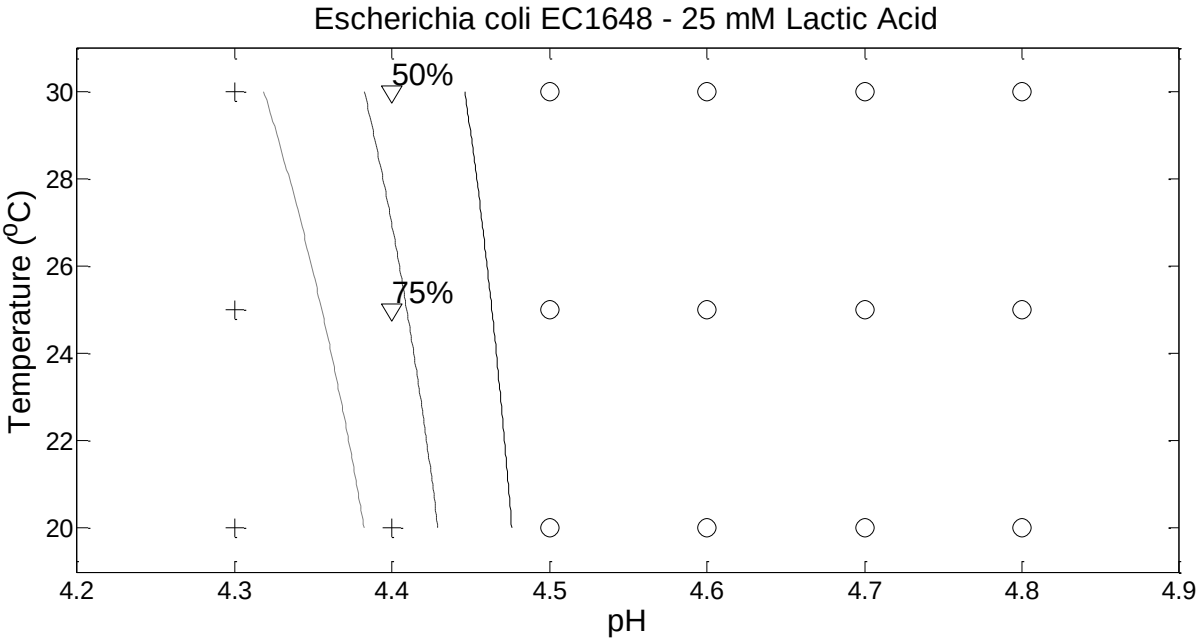
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-301.84	89.14	-3.39	0.00	-541.86	-163.81	0.00	0.00	0.00
pH	71.87	21.37	3.36	0.00	38.87	129.53	1.64E+31	7.59E+16	1.80E+56
LA	-0.79	0.20	-3.86	0.00	-1.35	-0.48	0.45	0.26	0.62
Temp	5.69	2.23	2.55	0.01	1.93	11.20	295.72	6.88	72867.64
pH:Temp	-1.25	0.52	-2.40	0.02	-2.52	-0.37	0.29	0.08	0.69

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	168.22	
pH	1	26.60	142	141.61	0.00
LA	1	76.48	141	65.14	0.00
Temp	1	17.14	140	48.00	0.00
pH:Temp	1	8.42	139	39.58	0.00

AIC	49.58
Likelihood Ratio	7.6E-27
Log-Likelihood	-19.79




Escherichia coli EC1648 - 0 mM Lactic Acid
50%
75%
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

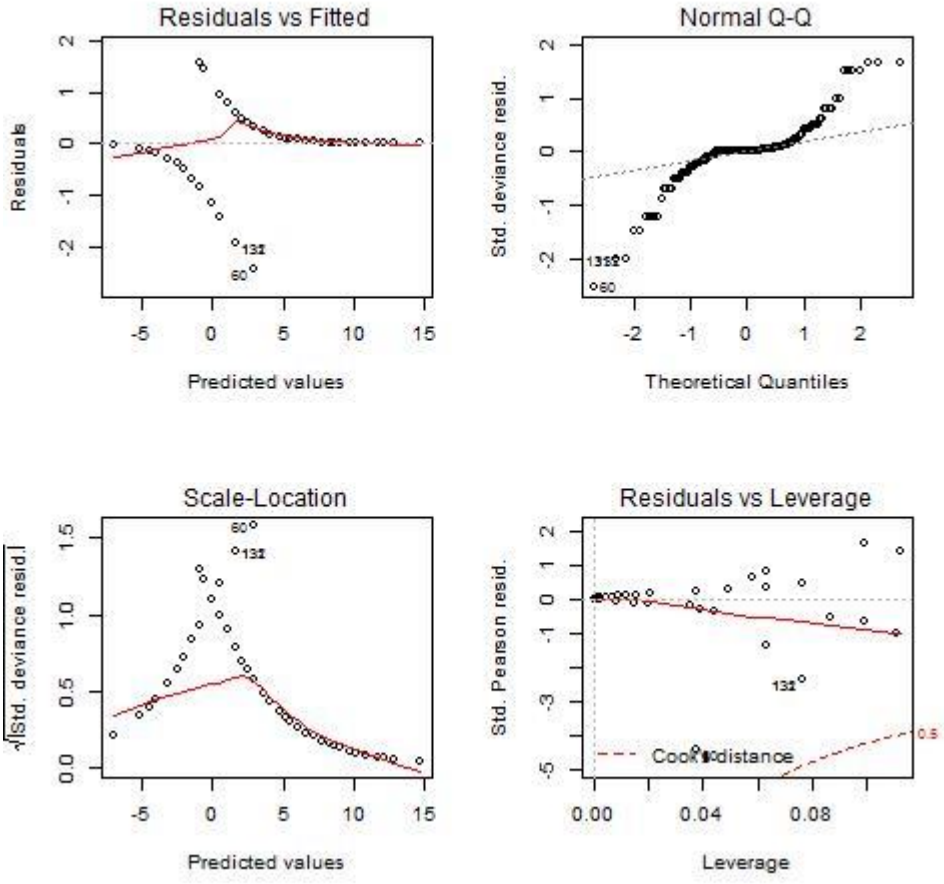

Escherichia coli EC1648 - 25 mM Lactic Acid
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

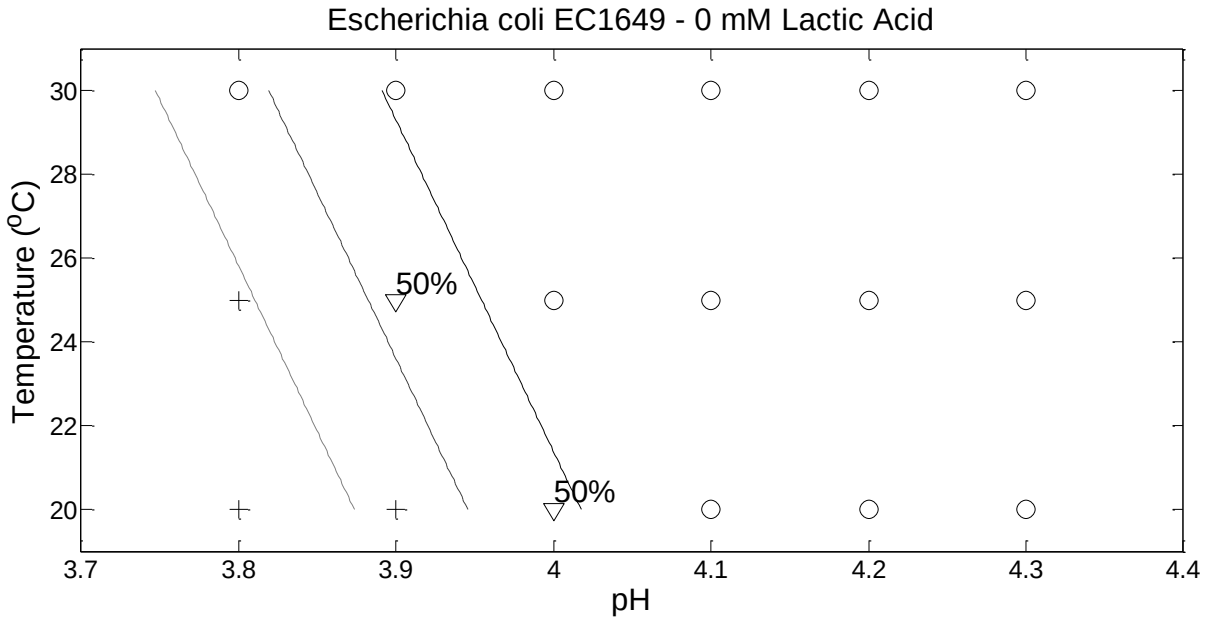
117. *E.coli* EC1649 Feline EPEC, 43750 I (Prof. J. Mainil (Ulg, Liège, Belgium))

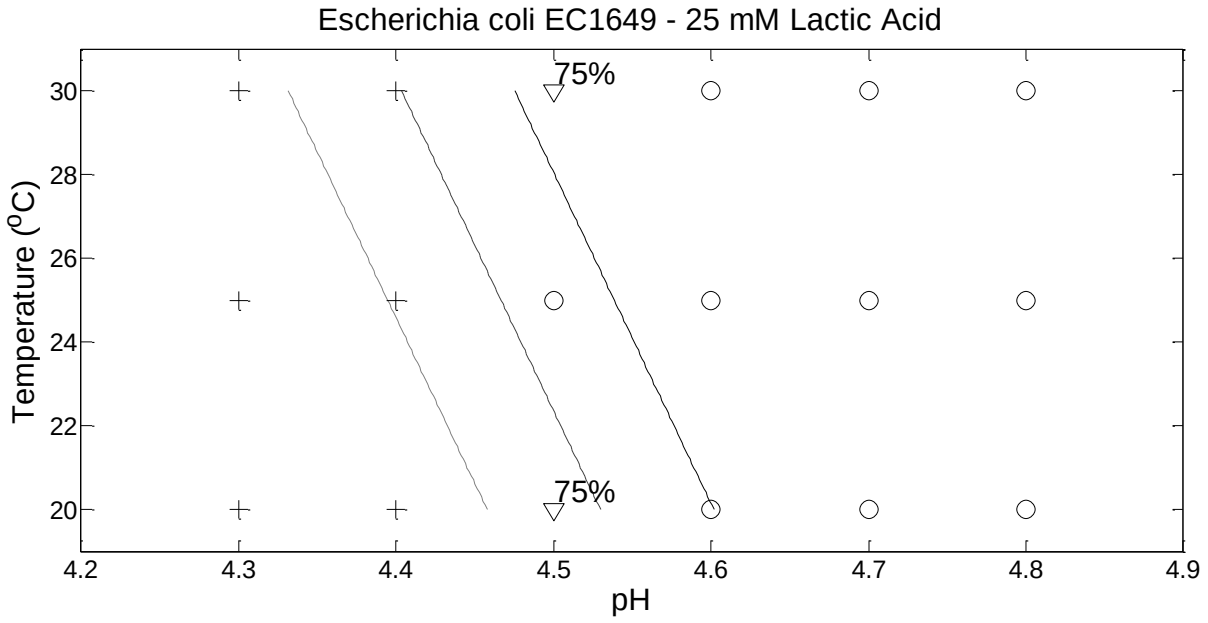
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-128.19	26.73	-4.80	0.00	-191.28	-84.57	0.00	0.00	0.00
pH	30.54	6.36	4.80	0.00	20.15	45.54	1.83E+13	5.65E+08	6.01E+19
LA	-0.71	0.15	-4.74	0.00	-1.07	-0.47	0.49	0.34	0.63
Temp	0.39	0.12	3.30	0.00	0.18	0.65	1.47	1.20	1.92

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	173.85	
pH	1	11.03	142	162.82	0.00
LA	1	95.99	141	66.83	0.00
Temp	1	16.56	140	50.27	0.00

AIC	58.27
Likelihood Ratio	1.31E-26
Log-Likelihood	-25.14




Escherichia coli EC1649 - 0 mM Lactic Acid
Temperature (°C)
pH
50%
50%
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

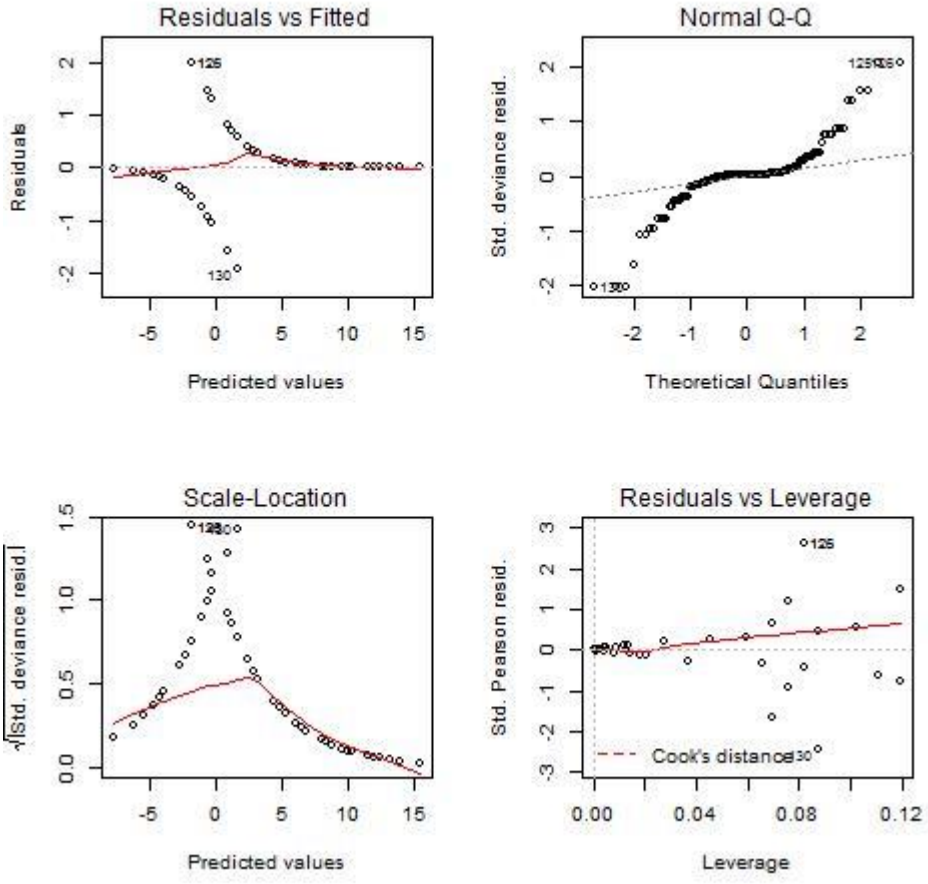

Escherichia coli EC1649 - 25 mM Lactic Acid
Temperature (°C)
pH
75%
75%
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

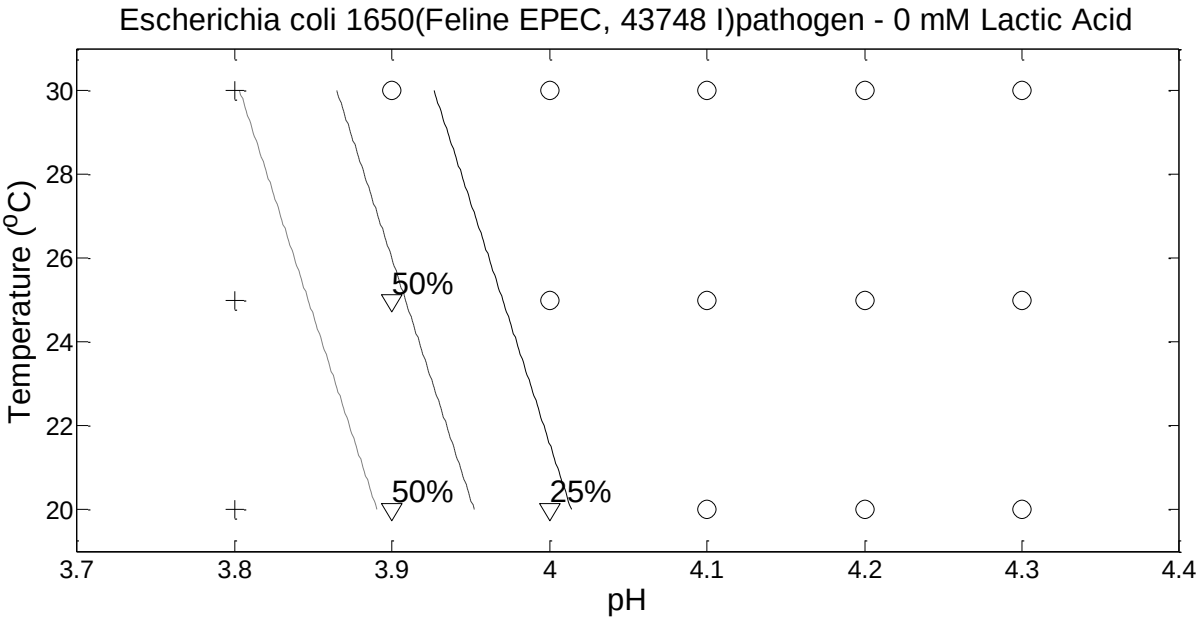
118. *E.coli* EC1650 Feline EPEC, 43748 I (Prof. J. Mainil (Ulg, Liège, Belgium))

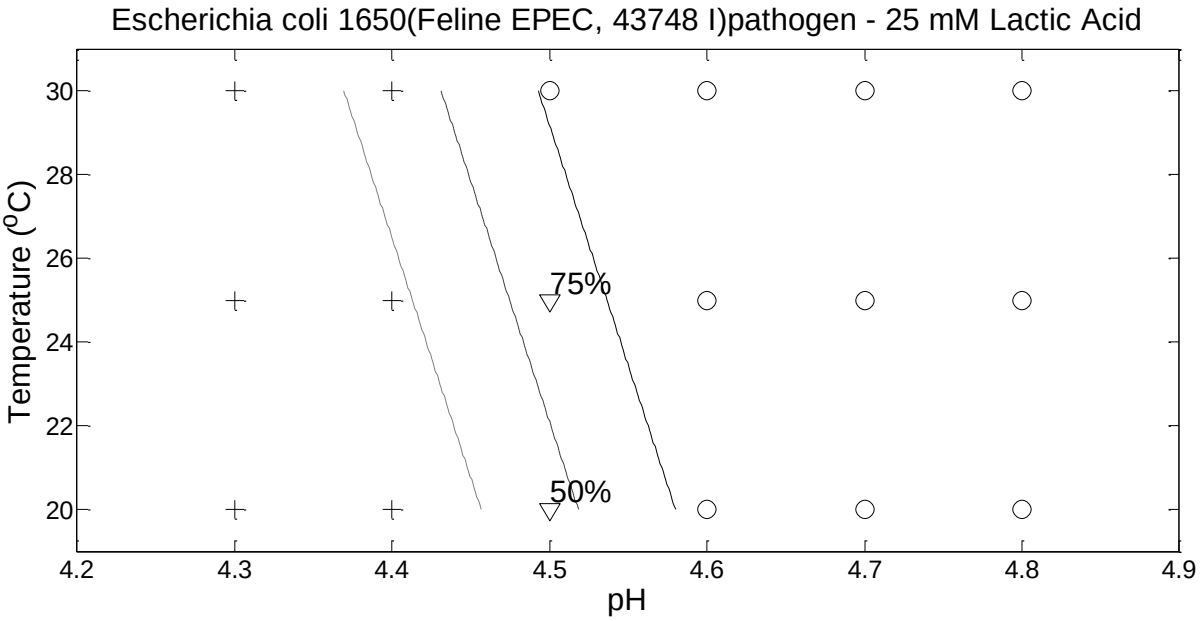
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-146.87	31.45	-4.67	0.00	-221.72	-96.04	0.00	0.00	0.00
pH	35.59	7.61	4.68	0.00	23.30	53.72	2.87E+15	1.32E+10	2.15E+23
LA	-0.81	0.17	-4.63	0.00	-1.22	-0.52	0.45	0.30	0.59
Temp	0.31	0.12	2.69	0.01	0.11	0.57	1.36	1.11	1.77

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	180.42	
pH	1	16.34	142	164.08	0.00
LA	1	110.38	141	53.69	0.00
Temp	1	9.77	140	43.92	0.00

AIC	51.92
Likelihood Ratio	2.15E-29
Log-Likelihood	-21.96




Escherichia coli 1650(Feline EPEC, 43748 I)pathogen - 0 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
50%
50%
25%
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

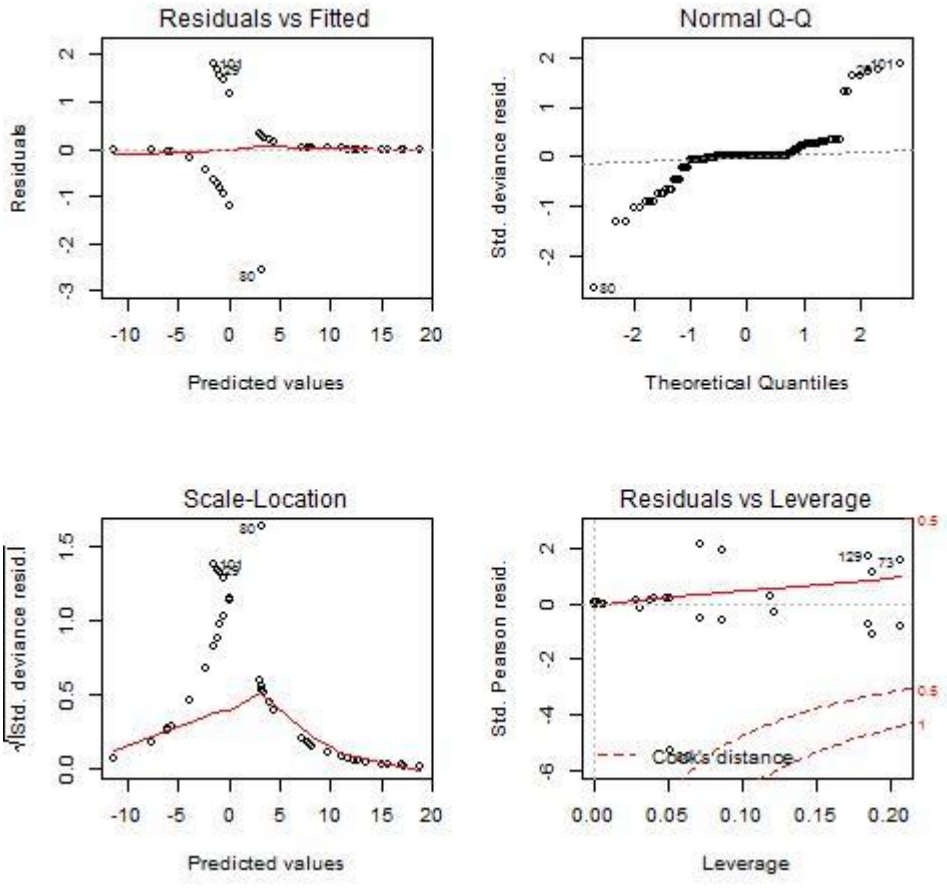

Escherichia coli 1650(Feline EPEC, 43748 I)pathogen - 25 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
75%
50%
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

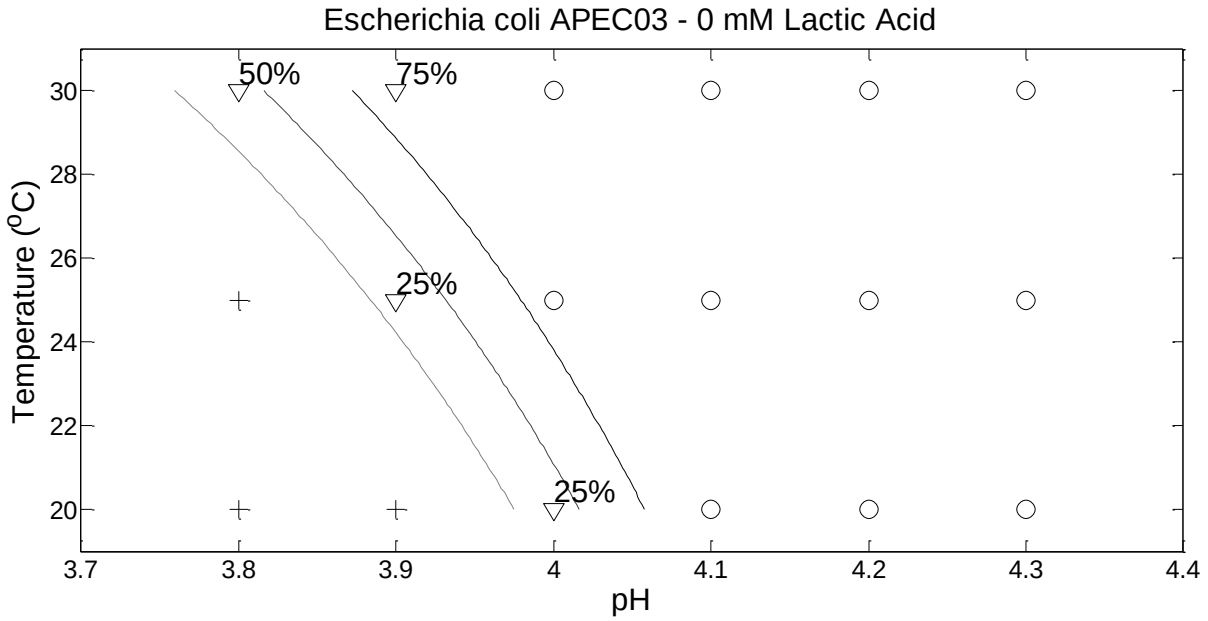
119. *E.coli* APEC03 (Prof. B. Goddeeris (KU Leuven, Belgium))

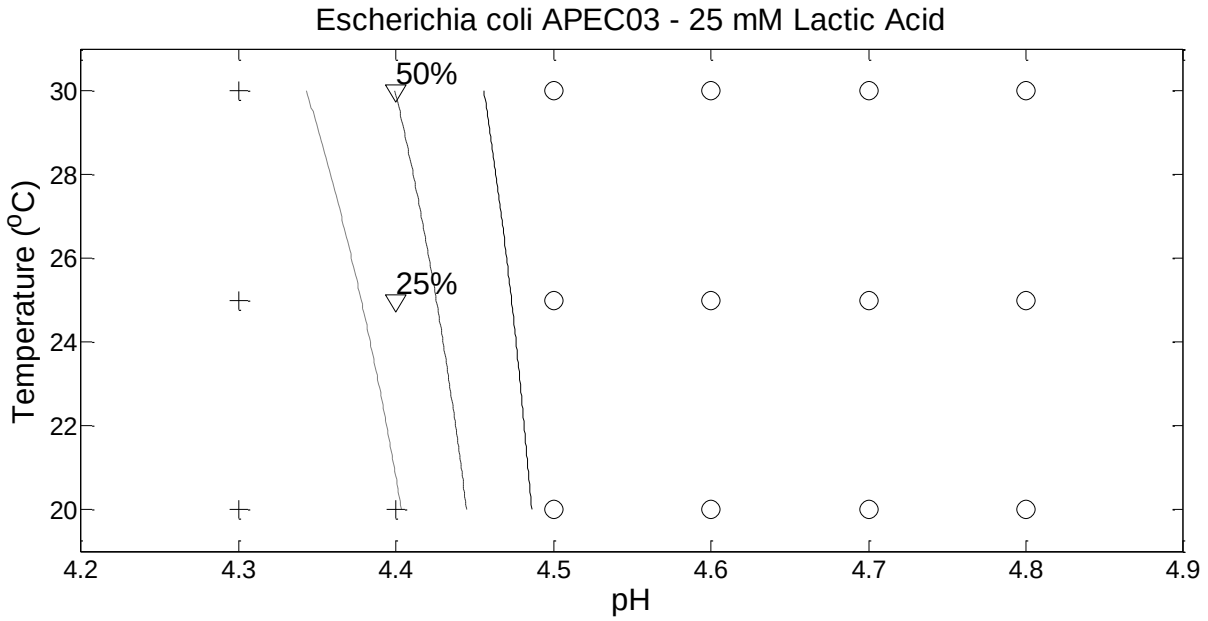
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-342.50	97.13	-3.53	0.00	-608.83	-191.29	0.00	0.00	0.00
pH	81.38	23.24	3.50	0.00	45.32	145.34	2.21E+35	4.83E+19	1.31E+63
LA	-0.91	0.24	-3.85	0.00	-1.55	-0.55	0.40	0.21	0.58
Temp	6.46	2.38	2.72	0.01	2.50	12.50	636.29	12.18	2.69E+05
pH:Temp	-1.41	0.55	-2.56	0.01	-2.81	-0.49	0.24	0.06	0.61

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	173.85	
pH	1	26.61	142	147.23	0.00
LA	1	84.60	141	62.64	0.00
Temp	1	18.27	140	44.37	0.00
pH:Temp	1	10.21	139	34.16	0.00

AIC	44.16
Likelihood Ratio	3.3E-29
Log-Likelihood	-17.08




Escherichia coli APEC03 - 0 mM Lactic Acid
50%
75%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

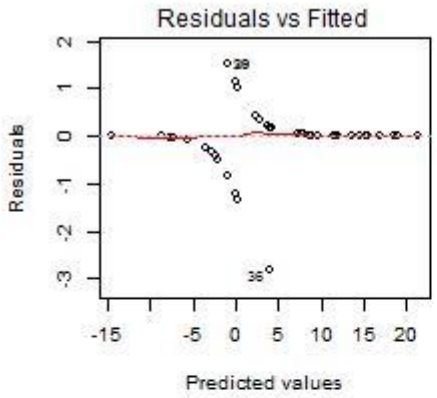

Escherichia coli APEC03 - 25 mM Lactic Acid
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

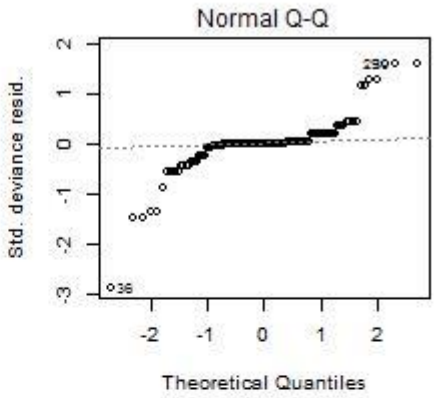
120. *E.coli* APEC04 (Prof. B. Goddeeris (KU Leuven, Belgium))

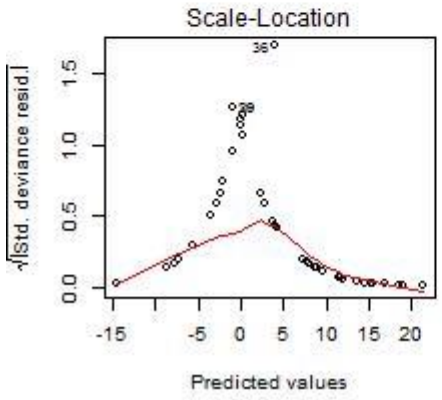
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-421.78	121.42	-3.47	0.00	-757.73	-238.15	0.00	0.00	0.00
pH	99.45	28.77	3.46	0.00	55.96	178.85	1.55E+43	2.01E+24	4.71E+77
LA	-0.90	0.23	-3.97	0.00	-1.50	-0.55	0.41	0.22	0.58
Temp	9.28	3.19	2.91	0.00	4.32	17.99	1.07E+04	74.90	6.49E+07
pH:Temp	-2.06	0.73	-2.80	0.01	-4.05	-0.91	0.13	0.02	0.40

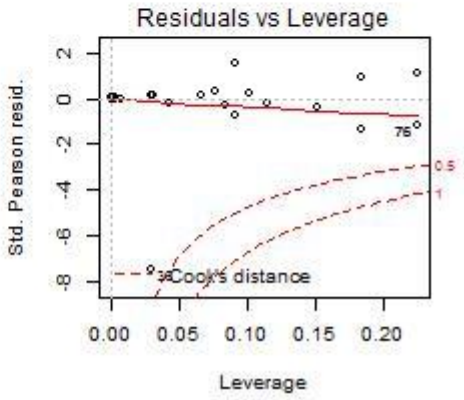
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	173.85	
pH	1	28.78	142	145.06	0.00
LA	1	73.67	141	71.39	0.00
Temp	1	23.41	140	47.98	0.00
pH:Temp	1	16.77	139	31.21	0.00

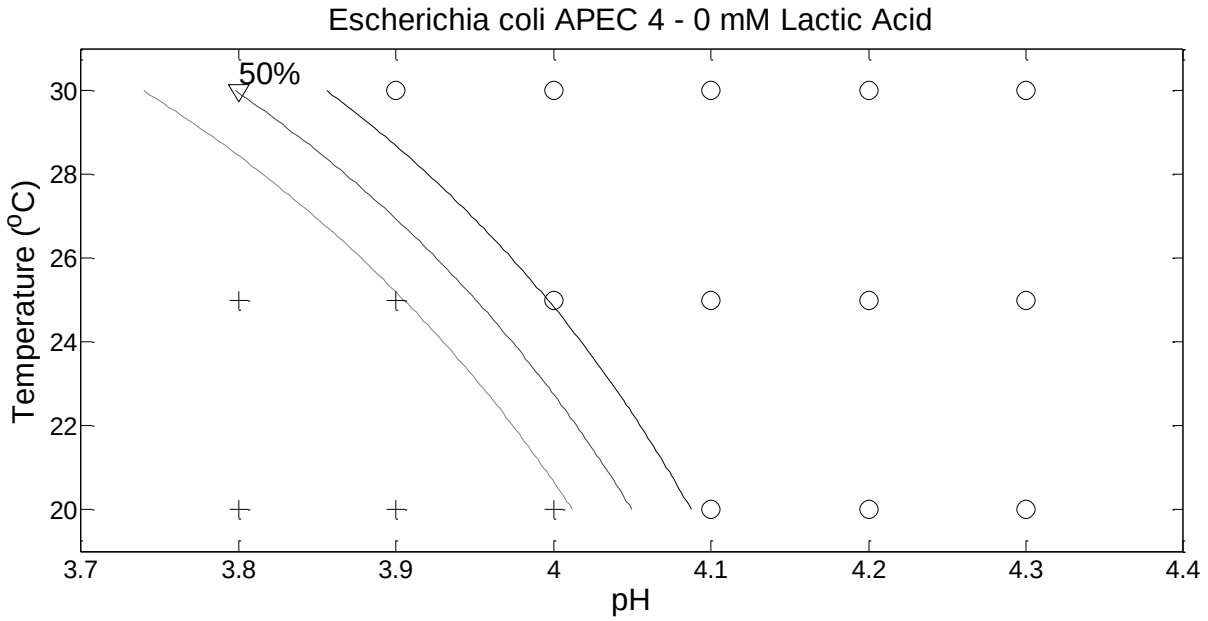
AIC	41.21
Likelihood Ratio	7.67E-30
Log-Likelihood	-15.60

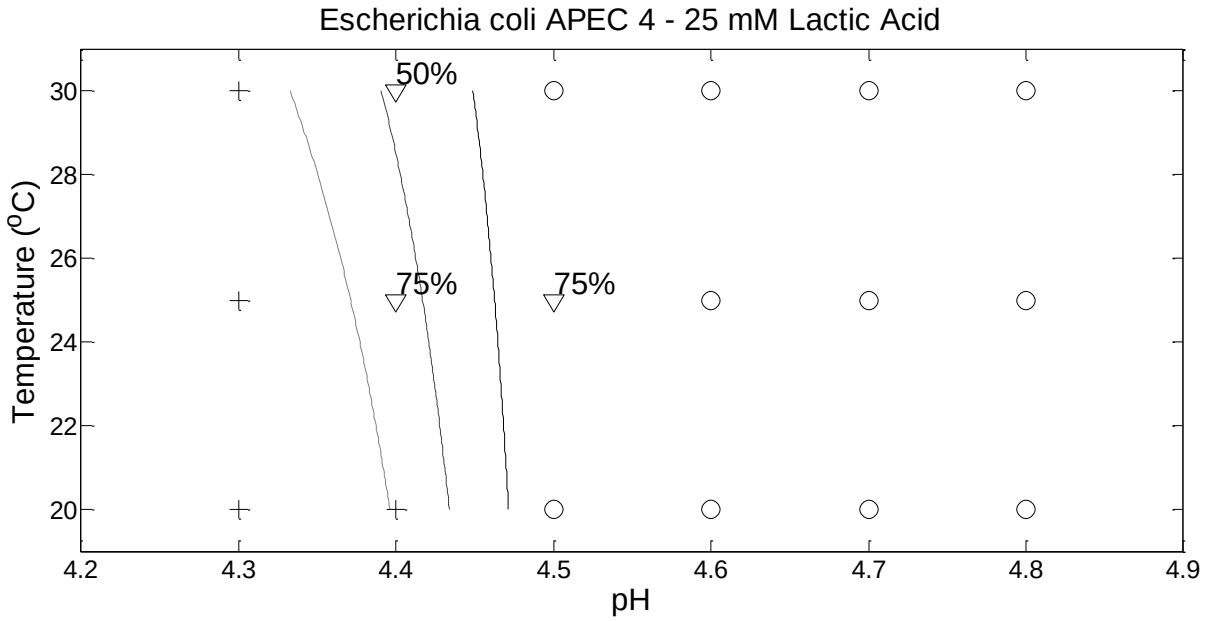









Escherichia coli APEC 4 - 0 mM Lactic Acid
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

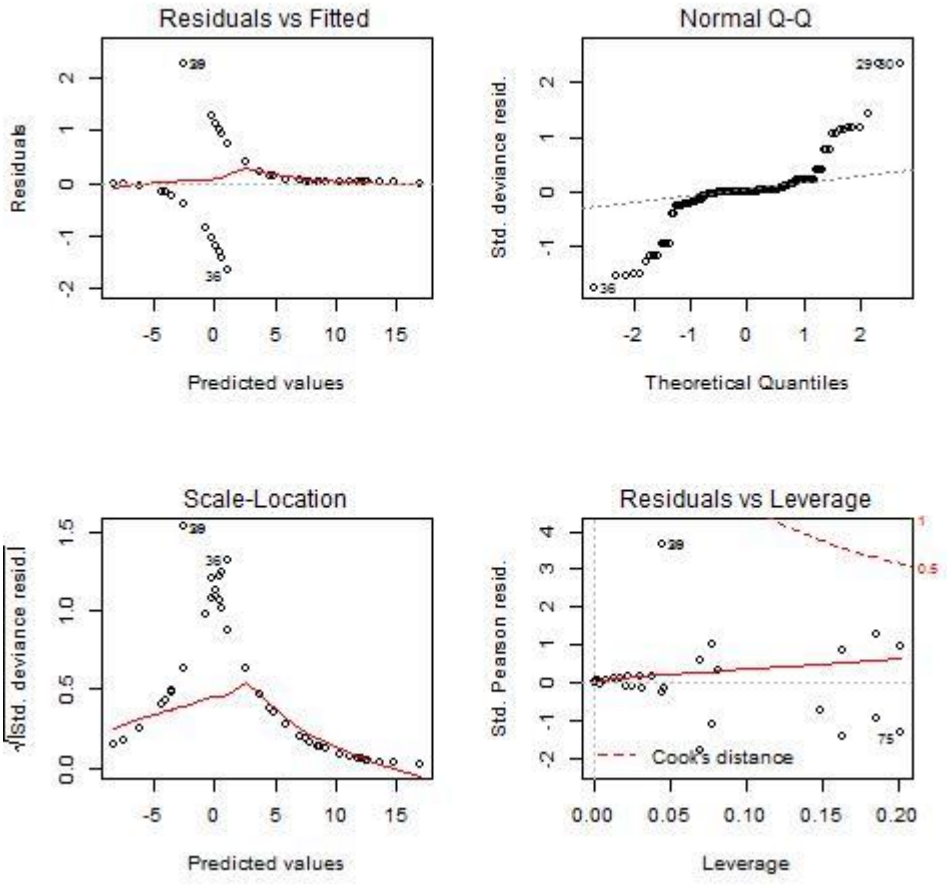

Escherichia coli APEC 4 - 25 mM Lactic Acid
50%
75%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

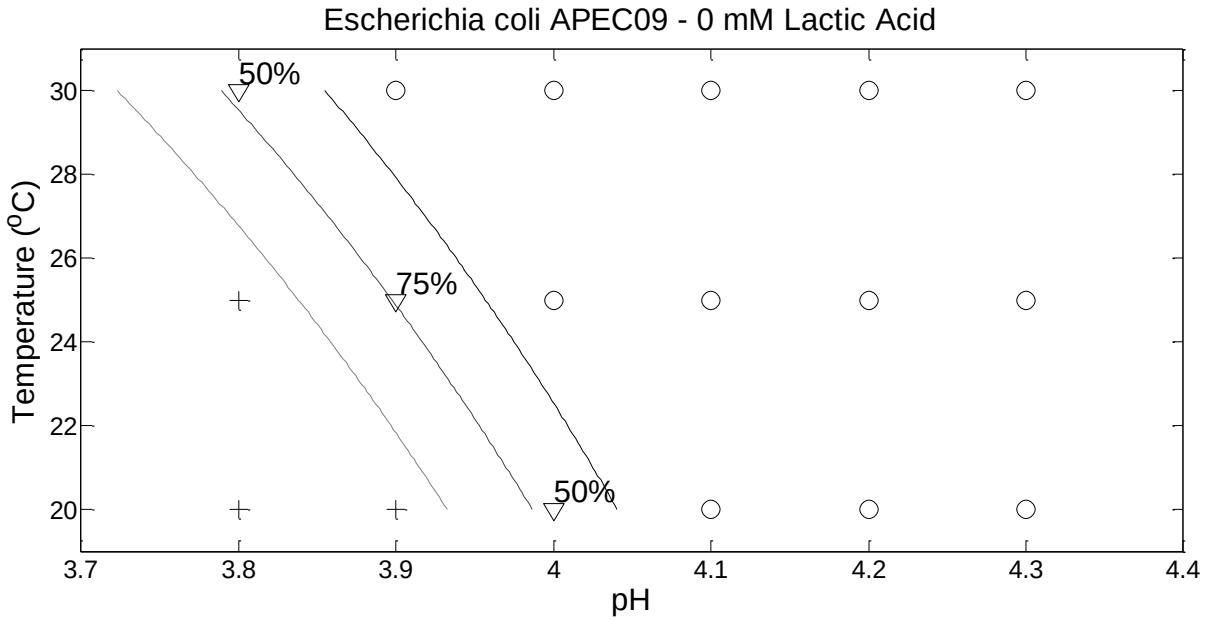
121. *E.coli* APEC09 (Prof. B. Goddeeris (KU Leuven, Belgium))

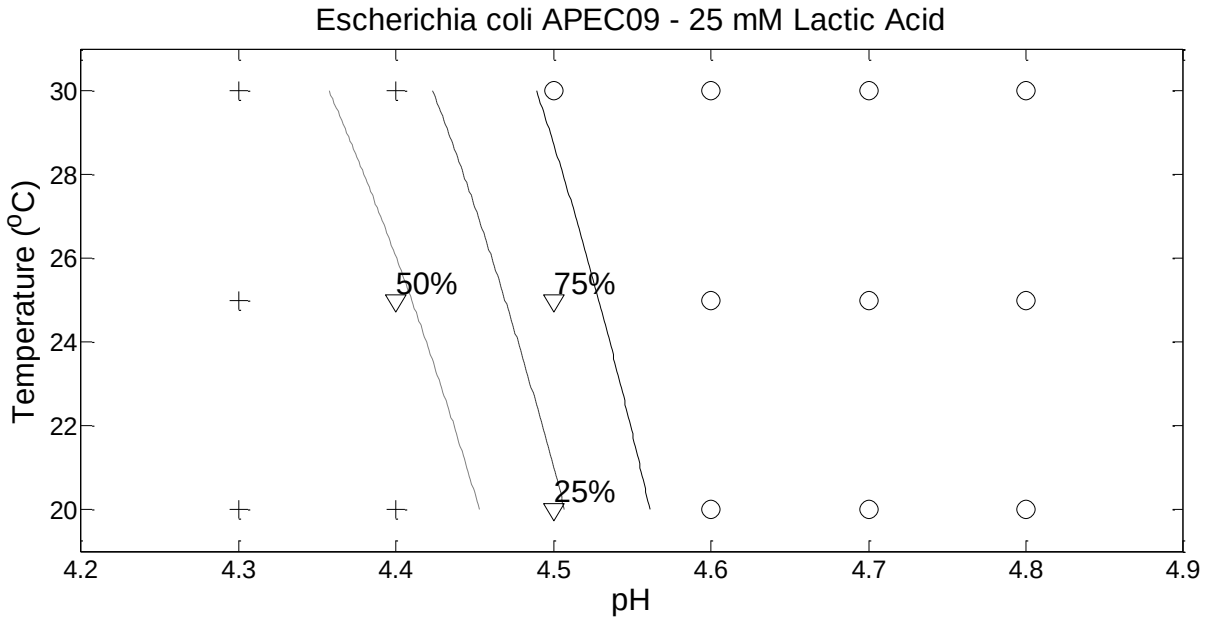
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-233.24	65.52	-3.56	0.00	-395.46	-128.08	0.00	0.00	0.00
pH	55.20	15.52	3.56	0.00	30.27	93.61	9.43E+23	1.40E+13	4.51E+40
LA	-0.85	0.21	-4.09	0.00	-1.38	-0.53	0.43	0.25	0.59
Temp	3.57	1.61	2.22	0.03	0.68	7.11	35.34	1.98	1229.76
pH:Temp	-0.73	0.37	-1.98	0.05	-1.53	-0.06	0.48	0.22	0.94

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	175.59	
pH	1	12.60	142	162.99	0.00
LA	1	95.52	141	67.47	0.00
Temp	1	20.55	140	46.92	0.00
pH:Temp	1	4.56	139	42.35	0.03

AIC	52.35
Likelihood Ratio	7.91E-28
Log-Likelihood	-21.18




Escherichia coli APEC09 - 0 mM Lactic Acid
50%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

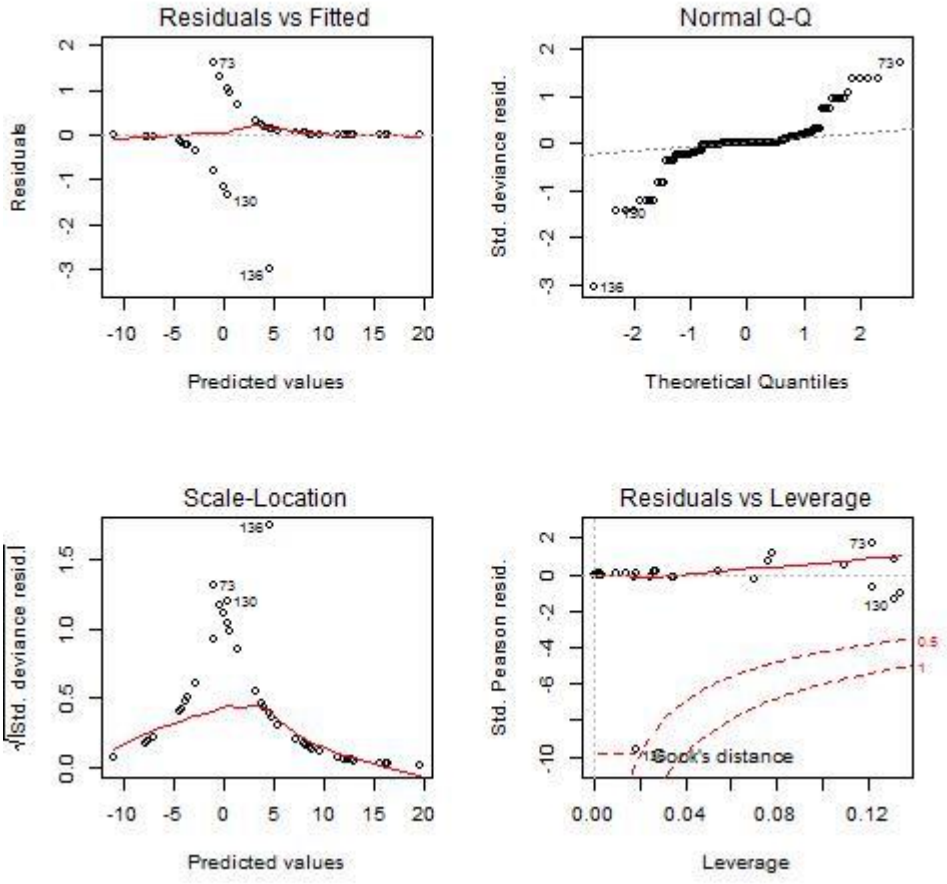

Escherichia coli APEC09 - 25 mM Lactic Acid
50%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

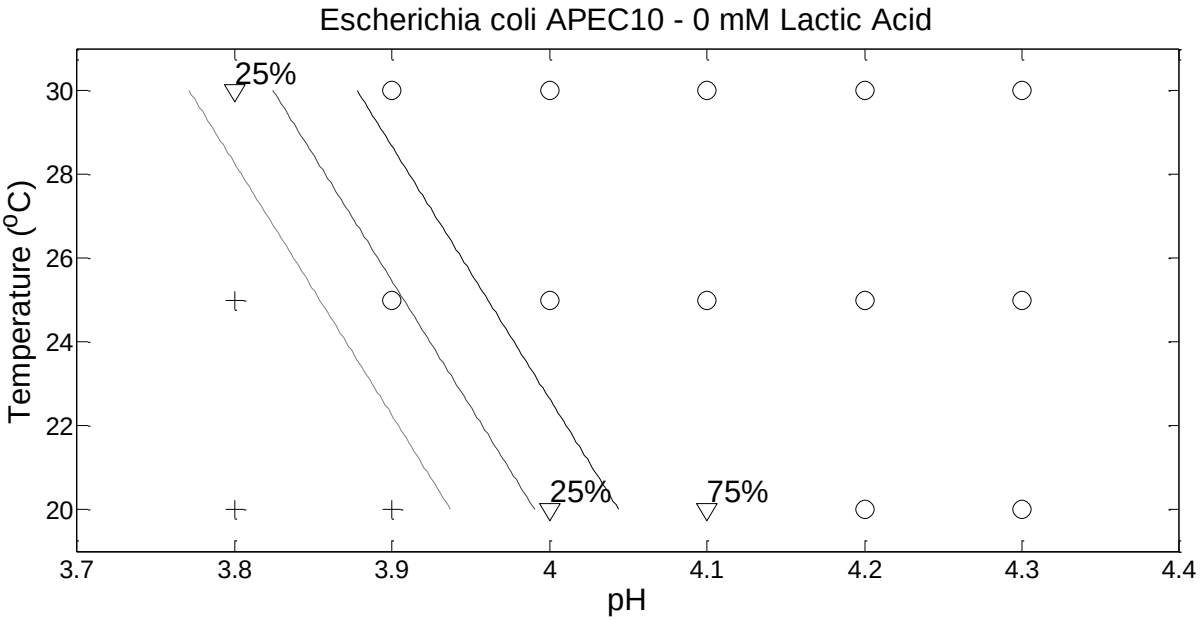
122. *E.coli* APEC10 (Prof. B. Goddeeris (KU Leuven, Belgium))

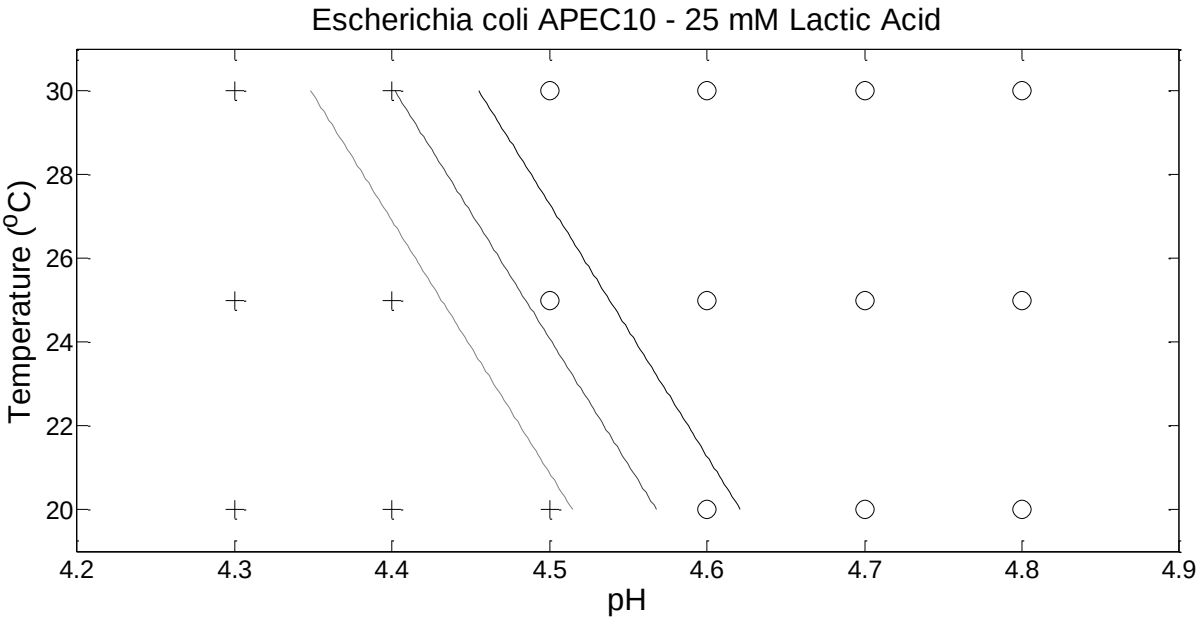
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-178.08	45.62	-3.90	0.00	-306.08	-110.05	0.00	0.00	0.00
pH	41.20	10.48	3.93	0.00	25.51	70.42	7.80E+17	1.20E+11	3.84E+30
LA	-0.95	0.25	-3.85	0.00	-1.65	-0.58	0.39	0.19	0.56
Temp	0.68	0.21	3.25	0.00	0.36	1.27	1.98	1.44	3.55

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	181.90	
pH	1	13.73	142	168.17	0.00
LA	1	98.34	141	69.83	0.00
Temp	1	30.38	140	39.45	0.00

AIC	47.45
Likelihood Ratio	1.12E-30
Log-Likelihood	-19.72




Escherichia coli APEC10 - 0 mM Lactic Acid
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

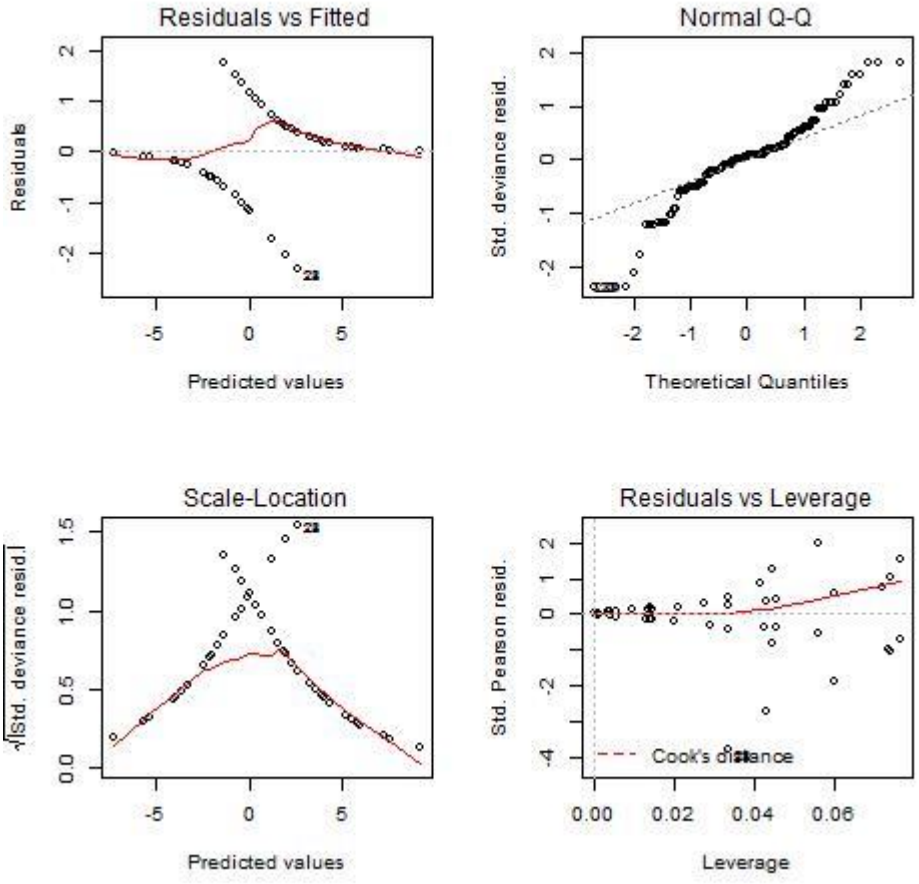

Escherichia coli APEC10 - 25 mM Lactic Acid
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

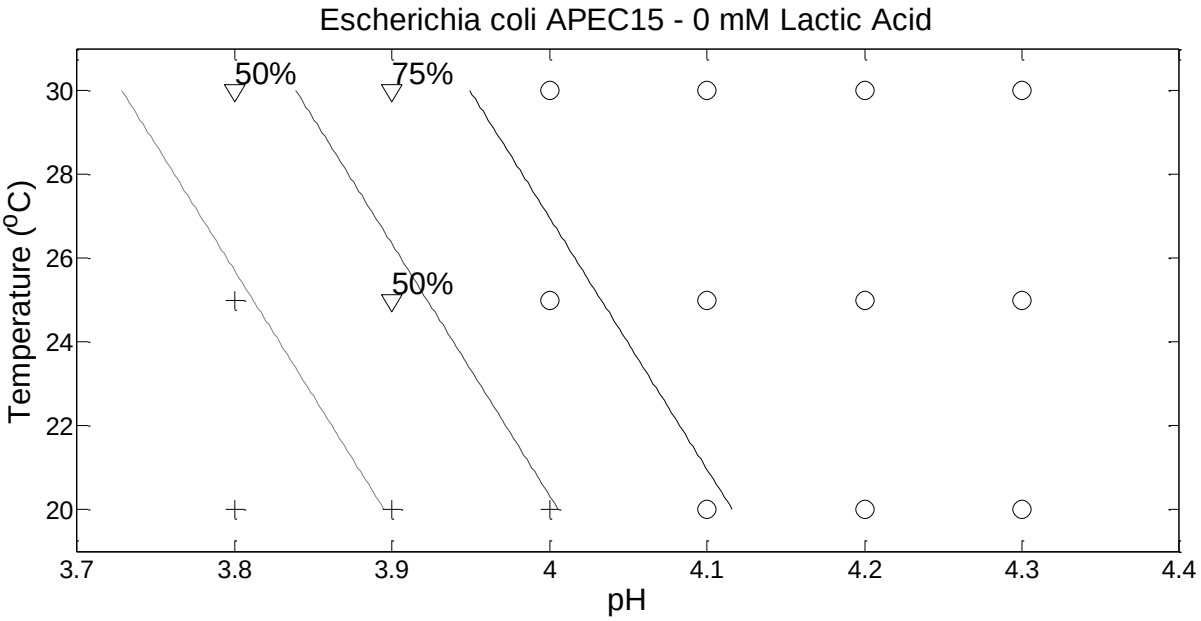
123. *E.coli* APEC15 (Prof. B. Goddeeris (KU Leuven, Belgium))

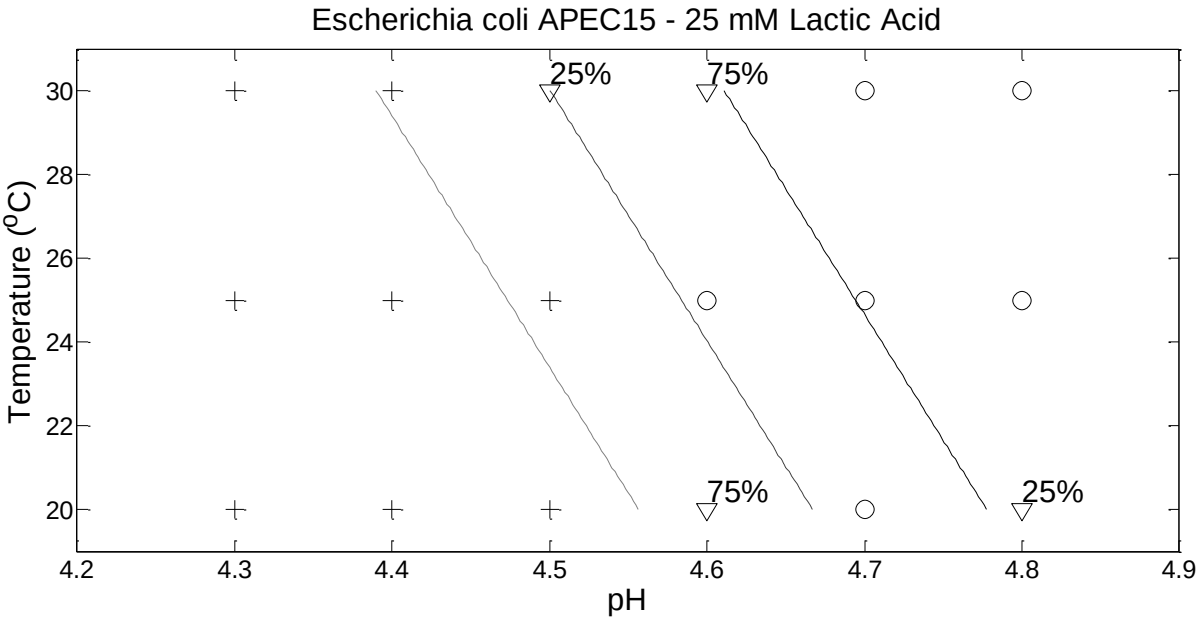
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-86.27	15.18	-5.68	0.00	-120.75	-60.44	0.00	0.00	0.00
pH	19.88	3.49	5.69	0.00	13.93	27.81	4.32E+08	1.12E+06	1.20E+12
LA	-0.53	0.09	-5.61	0.00	-0.74	-0.37	0.59	0.48	0.69
Temp	0.33	0.09	3.70	0.00	0.17	0.53	1.39	1.19	1.69

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	196.25	
pH	1	3.83	142	192.42	0.05
LA	1	97.93	141	94.49	0.00
Temp	1	19.10	140	75.39	0.00

AIC	83.39
Likelihood Ratio	5.03E-26
Log-Likelihood	-37.69




Escherichia coli APEC15 - 0 mM Lactic Acid
50%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

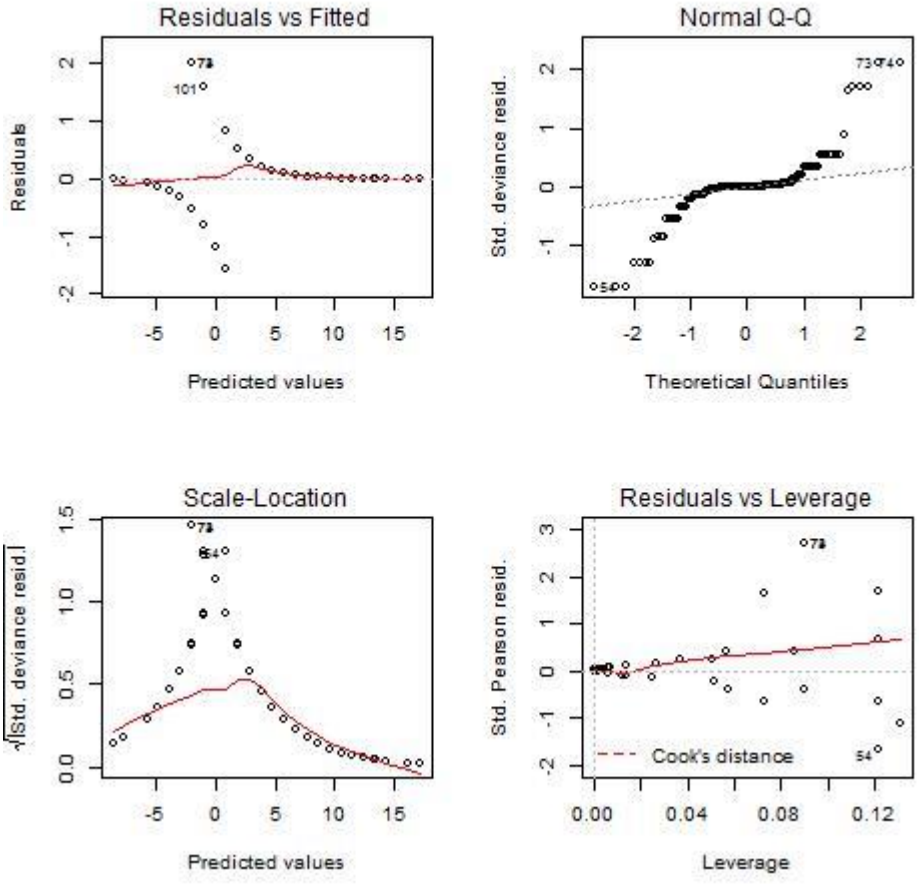

Escherichia coli APEC15 - 25 mM Lactic Acid
25%
75%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

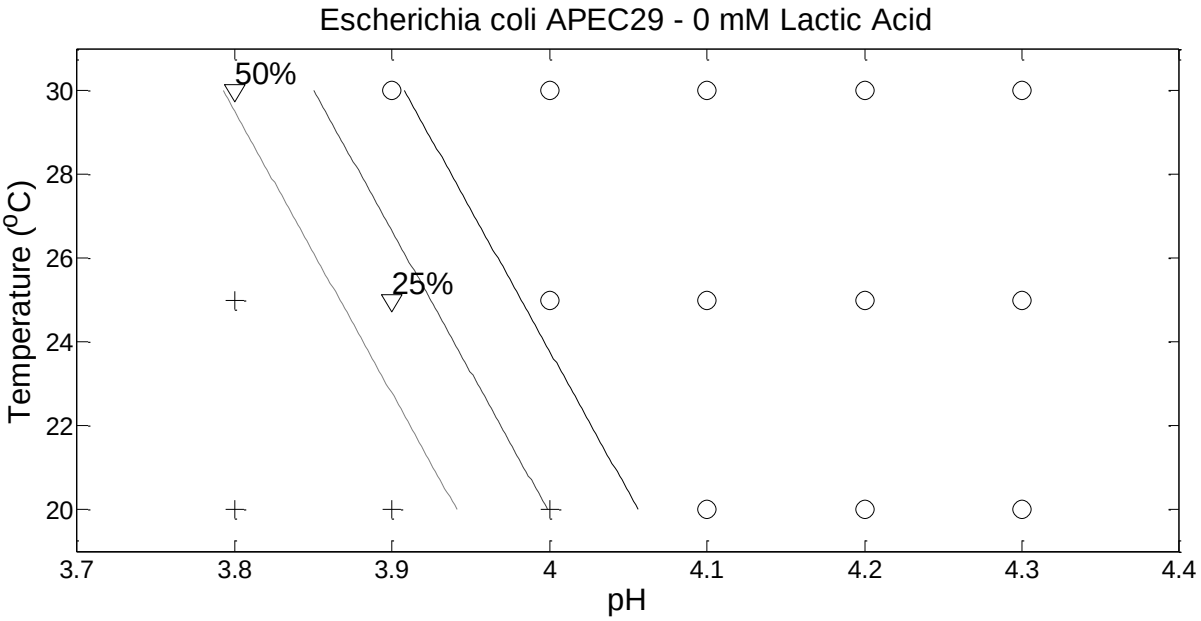
124. *E.coli* APEC29 (Prof. B. Goddeeris (KU Leuven, Belgium))

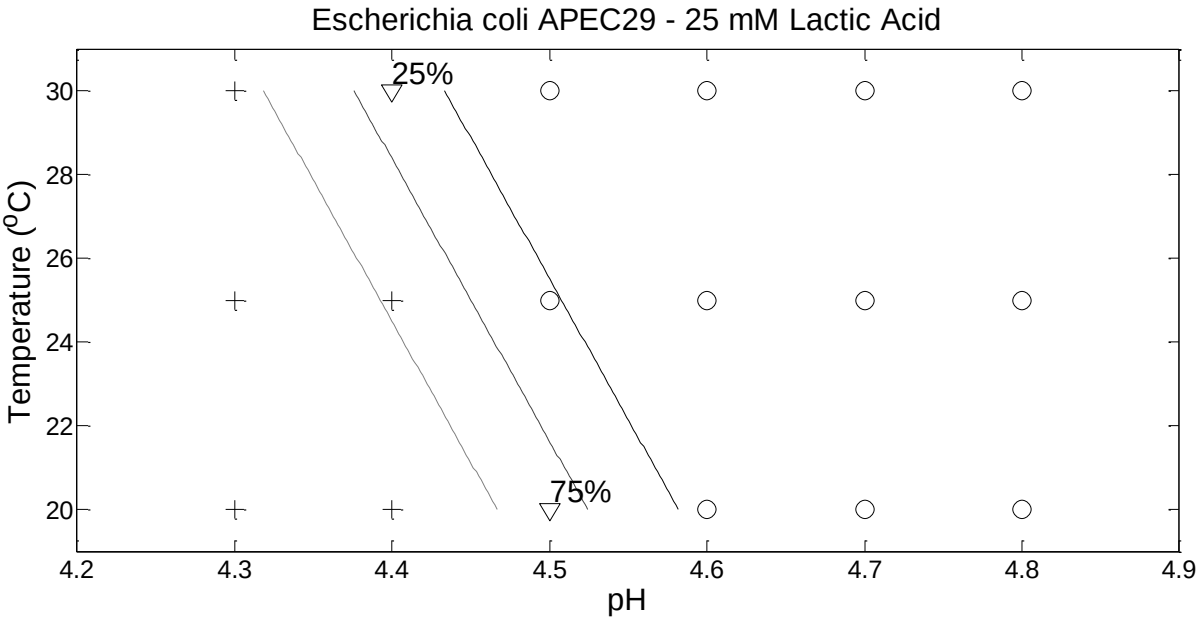
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-163.92	36.16	-4.53	0.00	-250.58	-105.75	0.00	0.00	0.00
pH	38.16	8.44	4.52	0.00	24.61	58.48	3.75E+16	4.87E+10	2.49E+25
LA	-0.80	0.18	-4.43	0.00	-1.24	-0.51	0.45	0.29	0.60
Temp	0.57	0.15	3.69	0.00	0.31	0.92	1.76	1.36	2.50

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	178.87	
pH	1	22.22	142	156.66	0.00
LA	1	89.78	141	66.87	0.00
Temp	1	26.10	140	40.77	0.00

AIC	48.77
Likelihood Ratio	9.7E-30
Log-Likelihood	-20.39




Escherichia coli APEC29 - 0 mM Lactic Acid
50%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

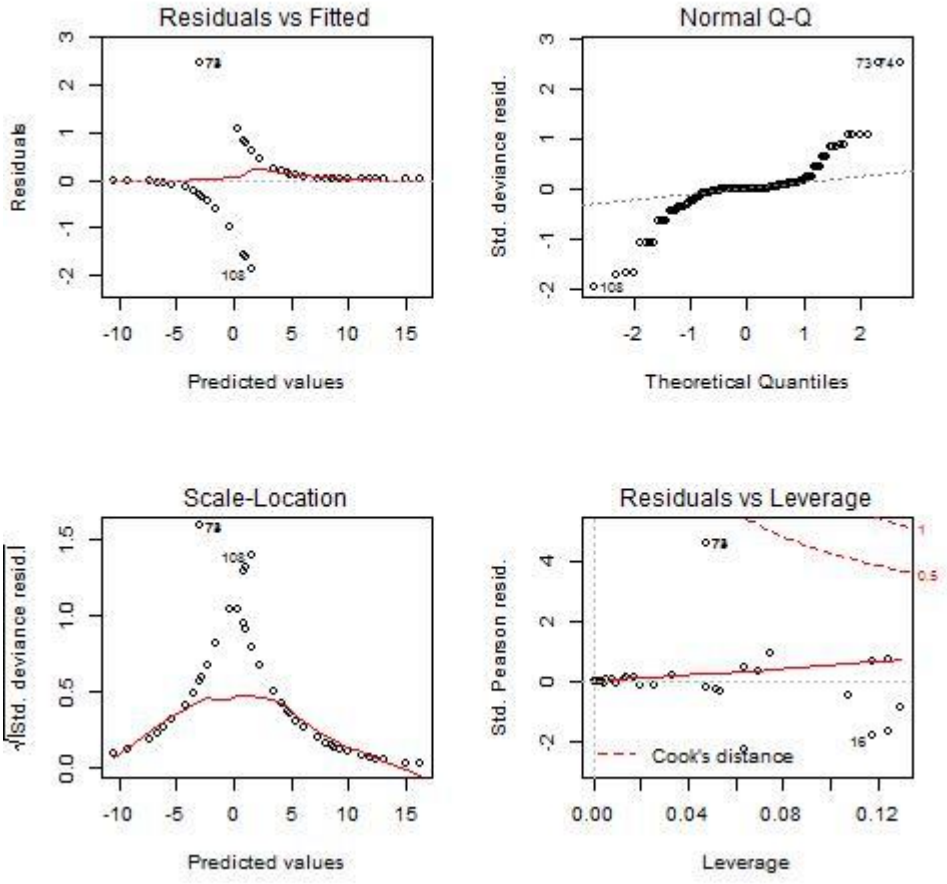

Escherichia coli APEC29 - 25 mM Lactic Acid
25%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

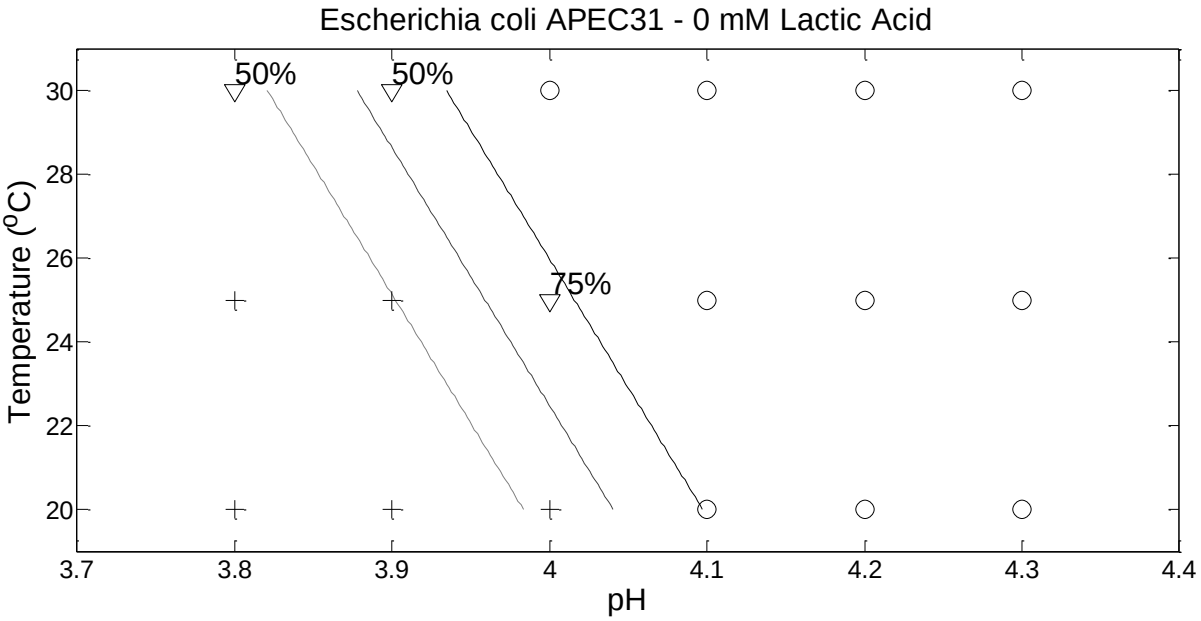
125. *E.coli* APEC31 (Prof. B. Goddeeris (KU Leuven, Belgium))

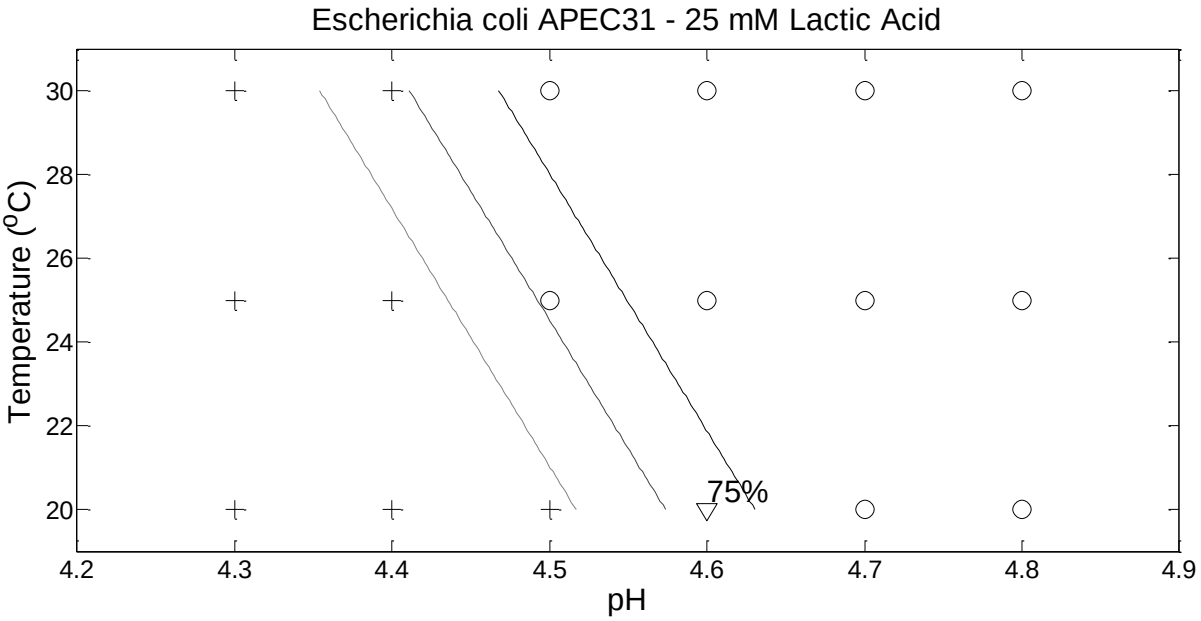
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-168.72	37.84	-4.46	0.00	-261.36	-108.77	0.00	0.00	0.00
pH	38.65	8.64	4.47	0.00	24.95	59.75	6.10E+16	6.83E+10	8.88E+25
LA	-0.82	0.19	-4.41	0.00	-1.28	-0.53	0.44	0.28	0.59
Temp	0.63	0.17	3.66	0.00	0.35	1.04	1.87	1.41	2.83

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	190.53	
pH	1	23.02	142	167.51	0.00
LA	1	96.93	141	70.58	0.00
Temp	1	29.80	140	40.79	0.00

AIC	48.79
Likelihood Ratio	2.99E-32
Log-Likelihood	-20.39




Escherichia coli APEC31 - 0 mM Lactic Acid
50%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

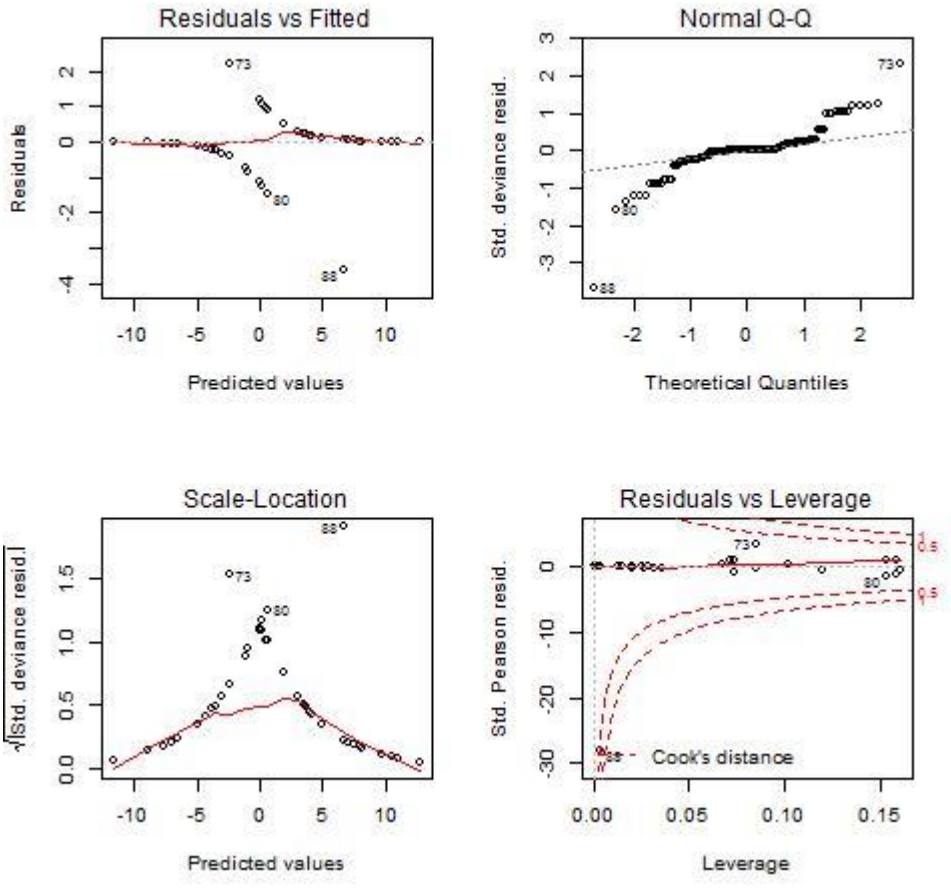

Escherichia coli APEC31 - 25 mM Lactic Acid
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

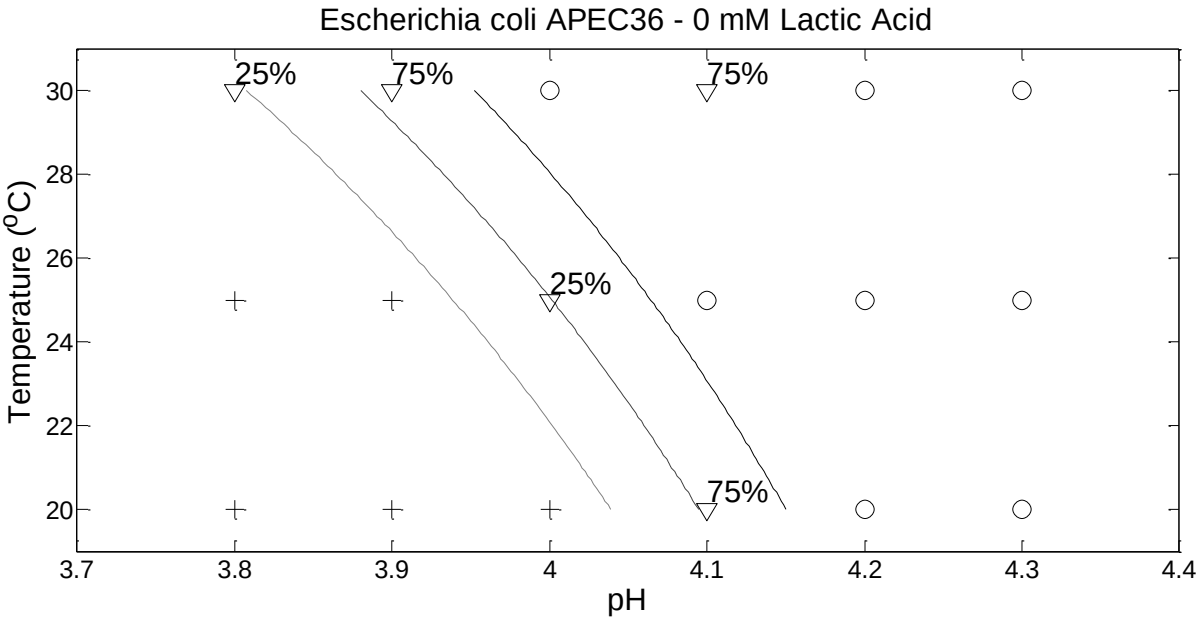
126. *E.coli* APEC36 (Prof. B. Goddeeris (KU Leuven, Belgium))

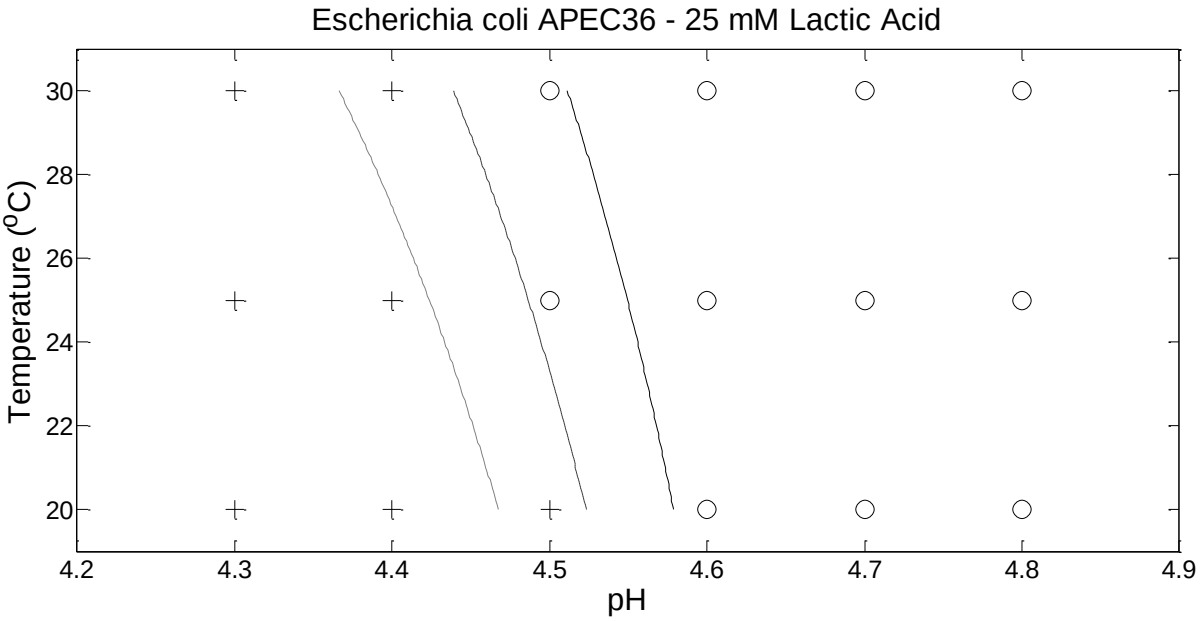
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-250.38	69.92	-3.58	0.00	-419.17	-136.62	0.00	0.00	0.00
pH	57.97	16.30	3.56	0.00	31.46	97.34	1.50E+25	4.58E+13	1.88E+42
LA	-0.68	0.15	-4.46	0.00	-1.05	-0.44	0.51	0.35	0.65
Temp	4.42	1.89	2.35	0.02	1.11	8.69	83.35	3.03	5942.00
pH:Temp	-0.92	0.43	-2.14	0.03	-1.89	-0.16	0.40	0.15	0.86

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	193.33	
pH	1	31.56	142	161.77	0.00
LA	1	87.39	141	74.38	0.00
Temp	1	22.38	140	52.00	0.00
pH:Temp	1	5.73	139	46.27	0.02

AIC	56.27
Likelihood Ratio	8.67E-31
Log-Likelihood	-23.13




Escherichia coli APEC36 - 0 mM Lactic Acid
25%
75%
75%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

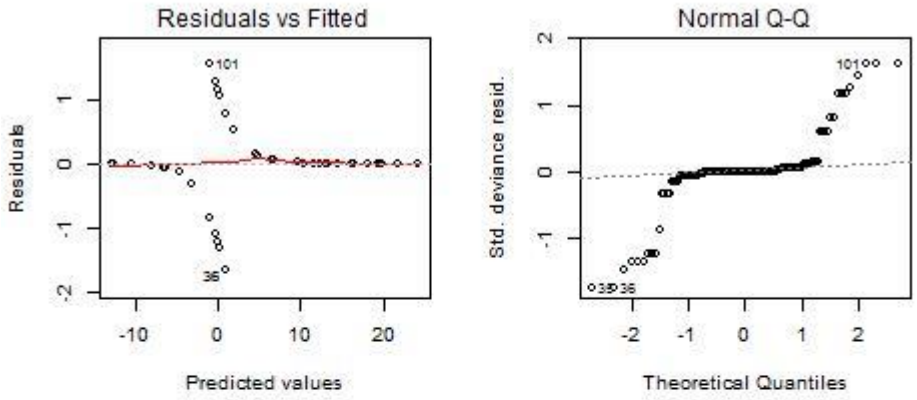

Escherichia coli APEC36 - 25 mM Lactic Acid
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

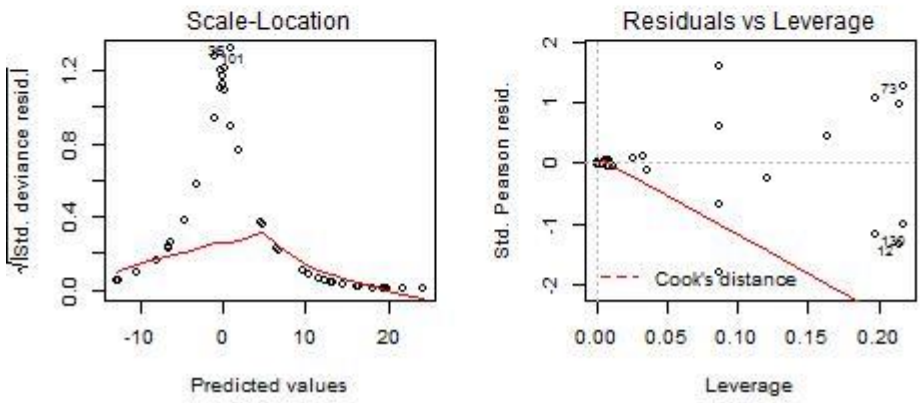
127. *E.coli* APEC115 (Prof. B. Goddeeris (KU Leuven, Belgium))

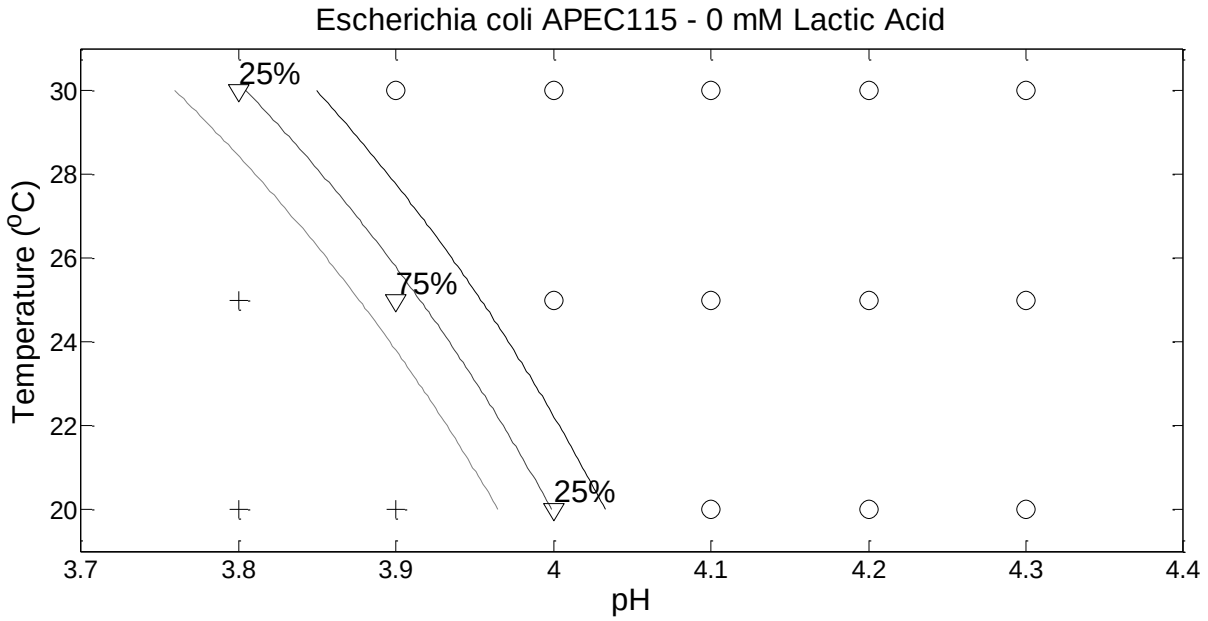
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-404.63	148.63	-2.72	0.01	-900.98	-205.30	0.00	0.00	0.00
pH	96.44	35.46	2.72	0.01	48.95	215.11	7.62E+41	1.81E+21	2.63E+93
LA	-1.29	0.46	-2.80	0.01	-2.82	-0.69	0.28	0.06	0.50
Temp	7.28	3.05	2.39	0.02	2.78	17.06	1454.25	16.15	2.55E+07
pH:Temp	-1.58	0.68	-2.32	0.02	-3.76	-0.56	0.21	0.02	0.57

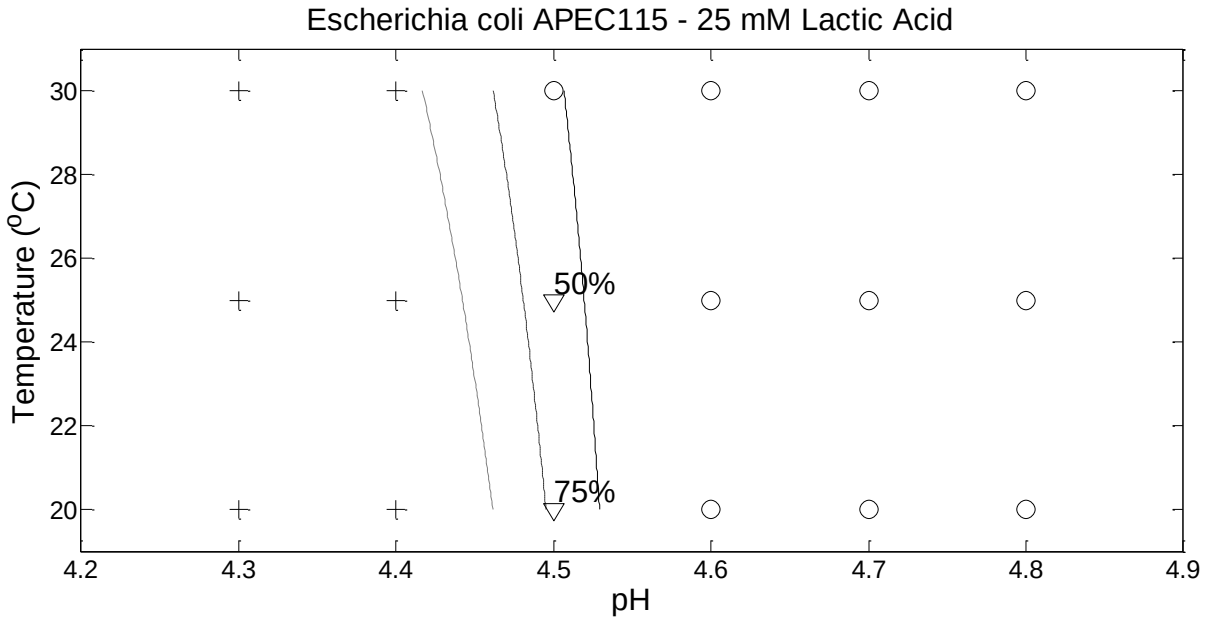
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	180.42	
pH	1	15.84	142	164.58	0.00
LA	1	105.34	141	59.24	0.00
Temp	1	15.33	140	43.91	0.00
pH:Temp	1	11.52	139	32.39	0.00

AIC	42.39
Likelihood Ratio	5.38E-31
Log-Likelihood	-16.19






Escherichia coli APEC115 - 0 mM Lactic Acid
25%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

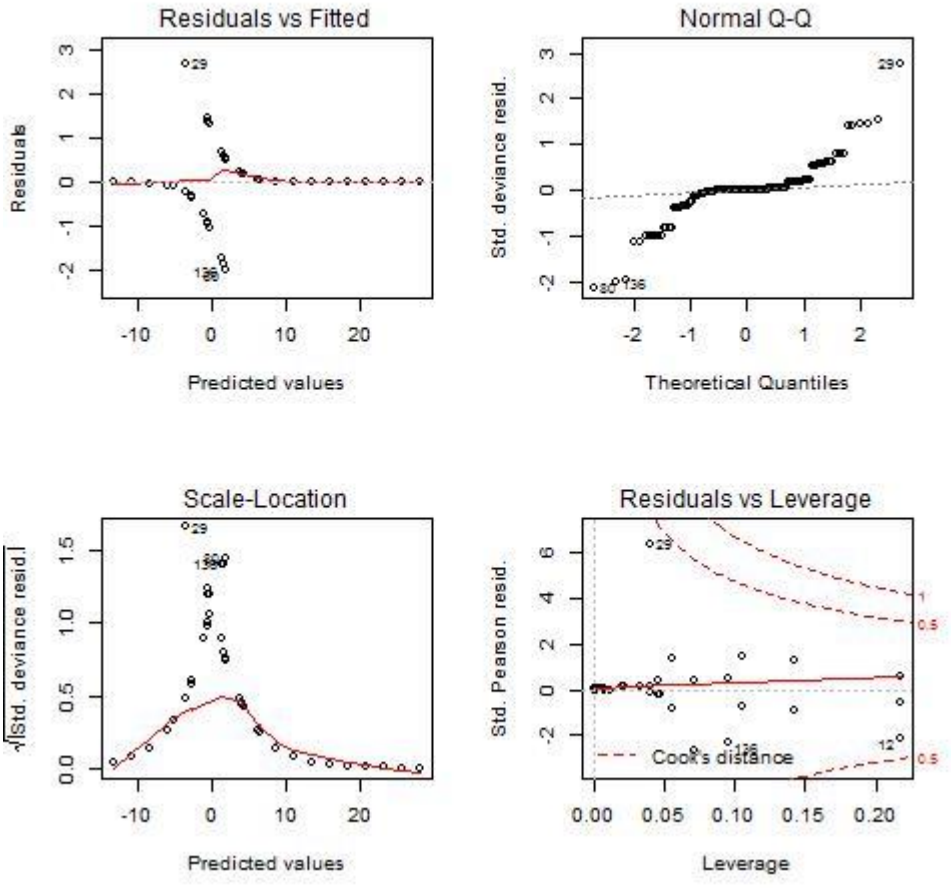

Escherichia coli APEC115 - 25 mM Lactic Acid
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

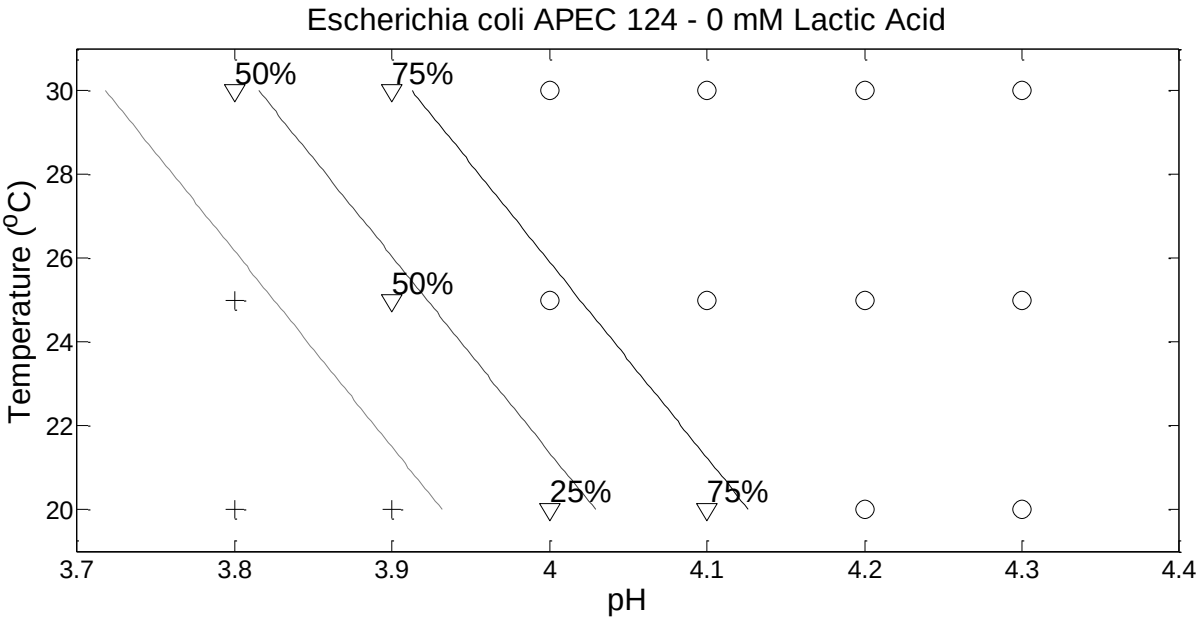
128. *E.coli* APEC124 (Prof. B. Goddeeris (KU Leuven, Belgium))

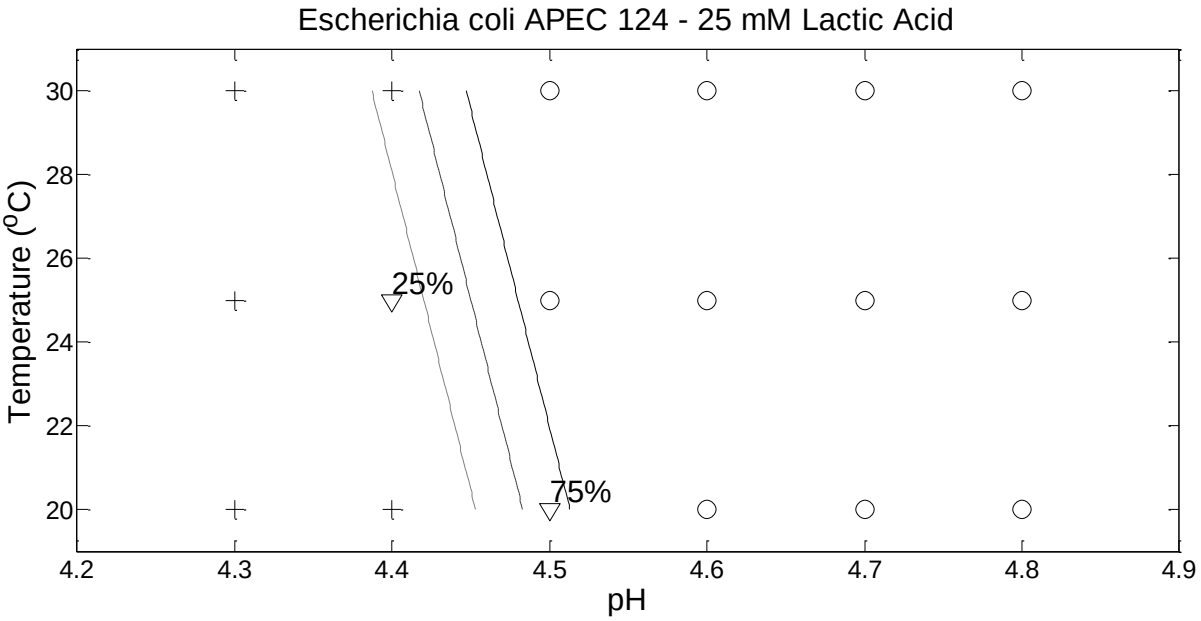
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-100.66	26.26	-3.83	0.00	-164.71	-58.95	0.00	0.00	0.00
pH	22.59	5.97	3.78	0.00	13.07	37.12	6.46E+09	4.75E+05	1.32E+16
LA	-9.51	3.31	-2.87	0.00	-17.15	-3.95	0.00	0.00	0.02
Temp	0.48	0.15	3.21	0.00	0.23	0.84	1.62	1.26	2.32
pH:LA	2.03	0.74	2.75	0.01	0.78	3.73	7.61	2.19	41.80

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	178.87	
pH	1	21.61	142	157.27	0.00
LA	1	85.95	141	71.32	0.00
Temp	1	15.29	140	56.03	0.00
pH:LA	1	13.30	139	42.73	0.00

AIC	52.73
Likelihood Ratio	1.89E-28
Log-Likelihood	-21.36




Escherichia coli APEC 124 - 0 mM Lactic Acid
50%
75%
50%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

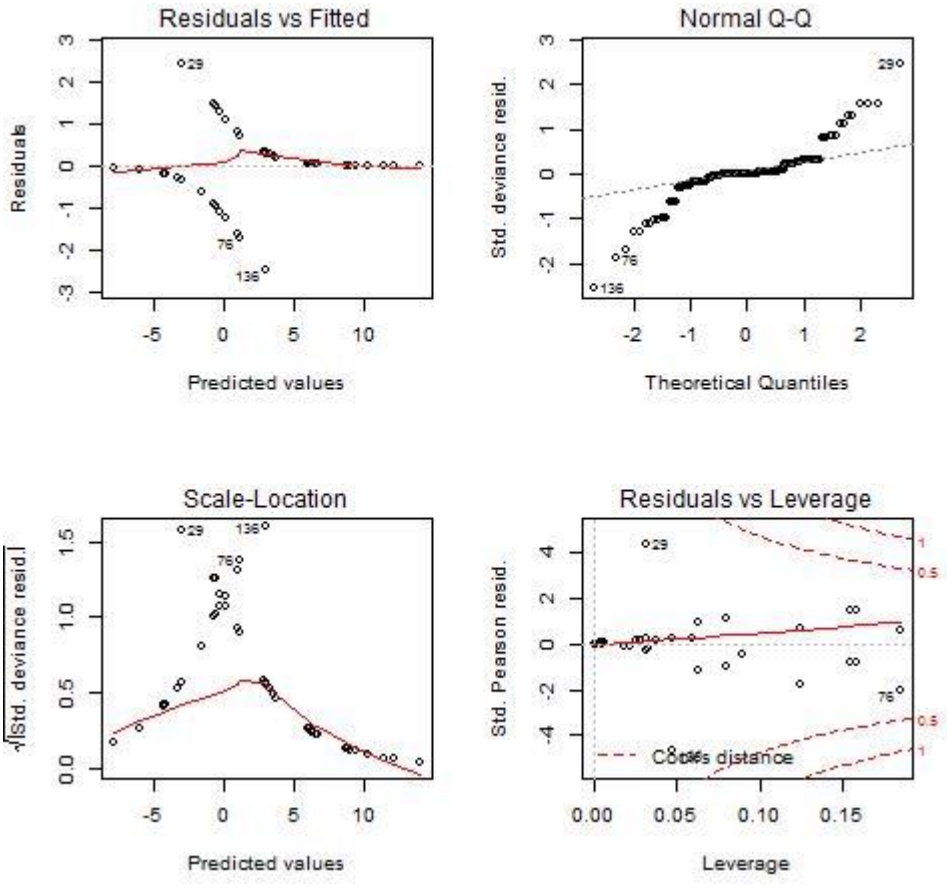

Escherichia coli APEC 124 - 25 mM Lactic Acid
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

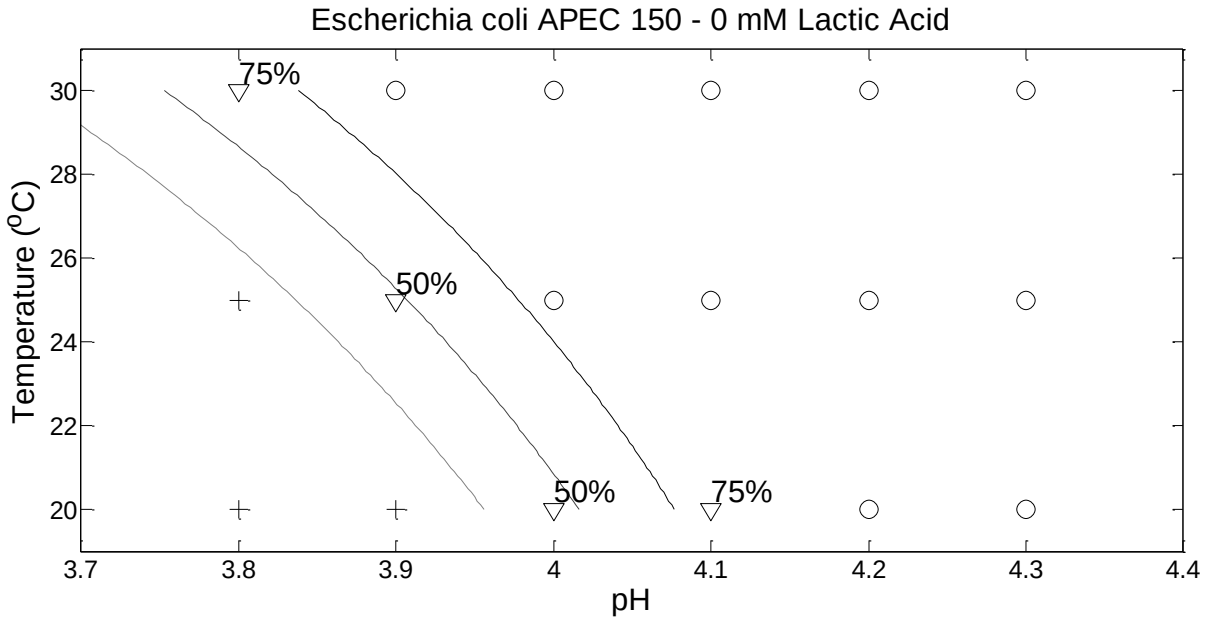
129. *E.coli* APEC150 (Prof. B. Goddeeris (KU Leuven, Belgium))

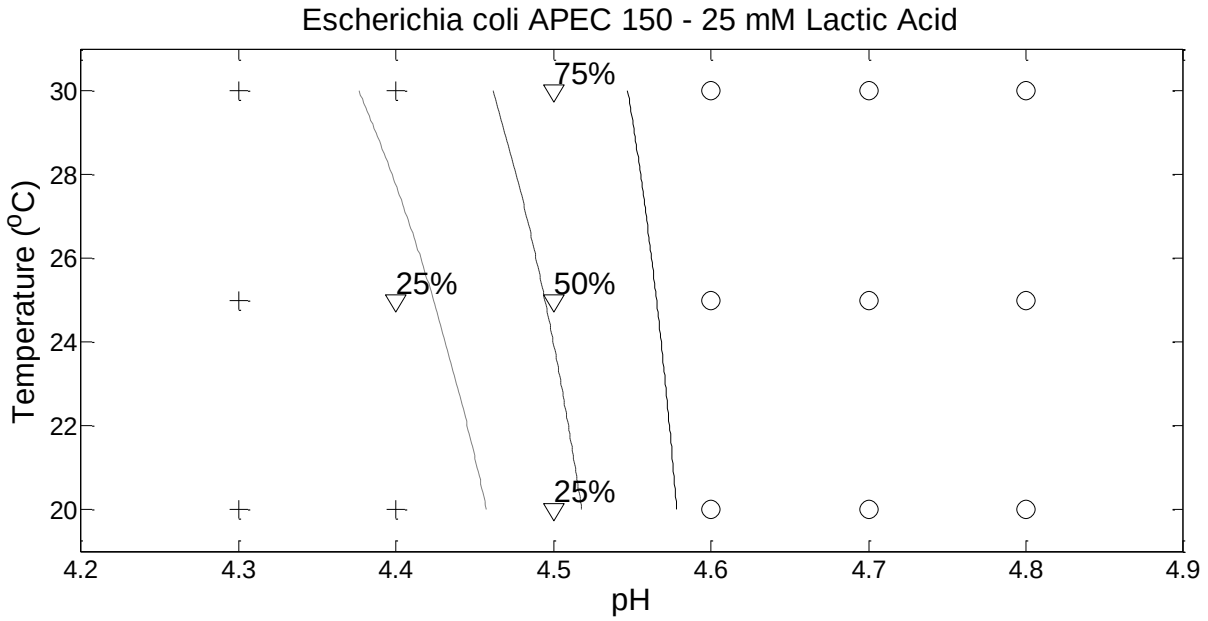
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-245.12	59.84	-4.10	0.00	-387.65	-146.09	0.00	0.00	0.00
pH	57.65	14.14	4.08	0.00	34.29	91.42	1.09E+25	7.78E+14	5.03E+39
LA	-0.73	0.16	-4.49	0.00	-1.14	-0.47	0.48	0.32	0.62
Temp	4.95	1.63	3.04	0.00	2.10	8.63	141.75	8.13	5621.94
pH:Temp	-1.06	0.37	-2.85	0.00	-1.90	-0.40	0.34	0.15	0.67

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	181.90	
pH	1	10.32	142	171.58	0.00
LA	1	92.95	141	78.63	0.00
Temp	1	20.33	140	58.30	0.00
pH:Temp	1	11.05	139	47.25	0.00

AIC	57.25
Likelihood Ratio	3.94E-28
Log-Likelihood	-23.62




Escherichia coli APEC 150 - 0 mM Lactic Acid
75%
50%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

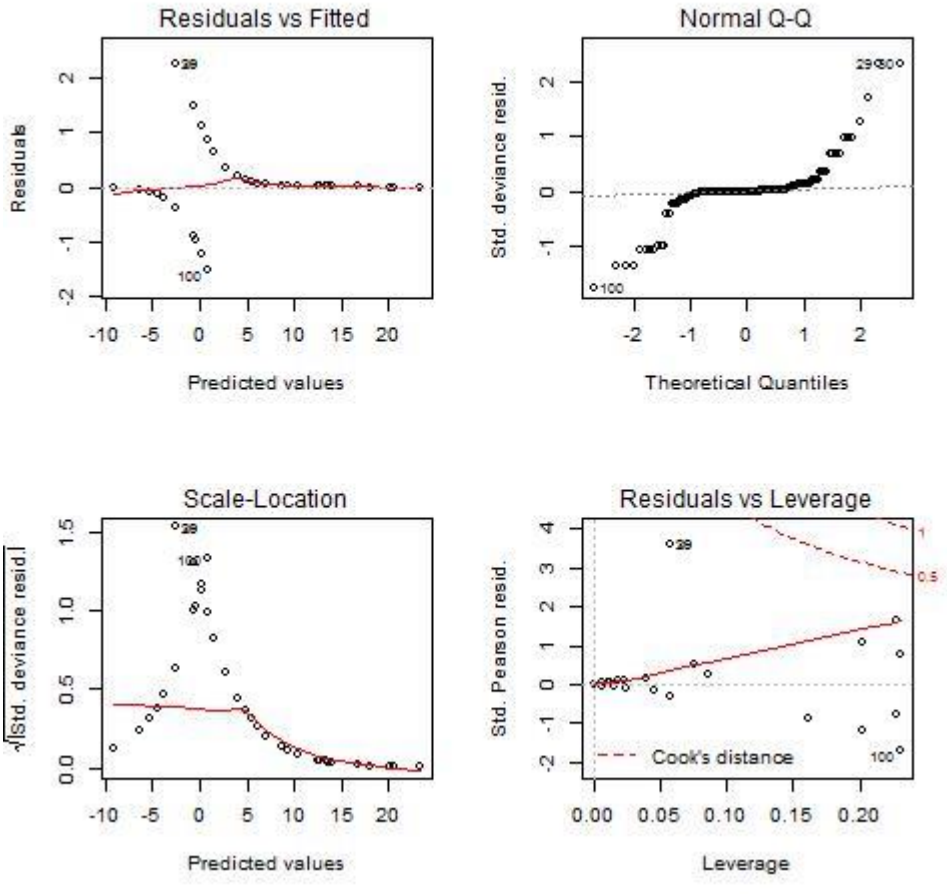

Escherichia coli APEC 150 - 25 mM Lactic Acid
75%
25%
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

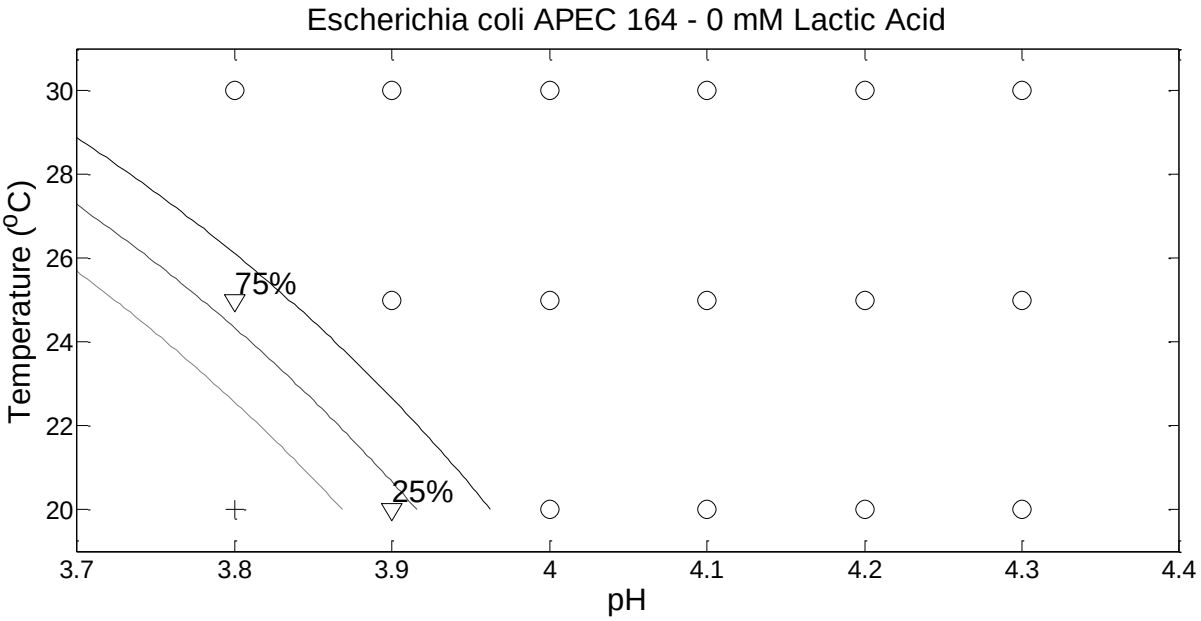
130. *E.coli* APEC164 (Prof. B. Goddeeris (KU Leuven, Belgium))

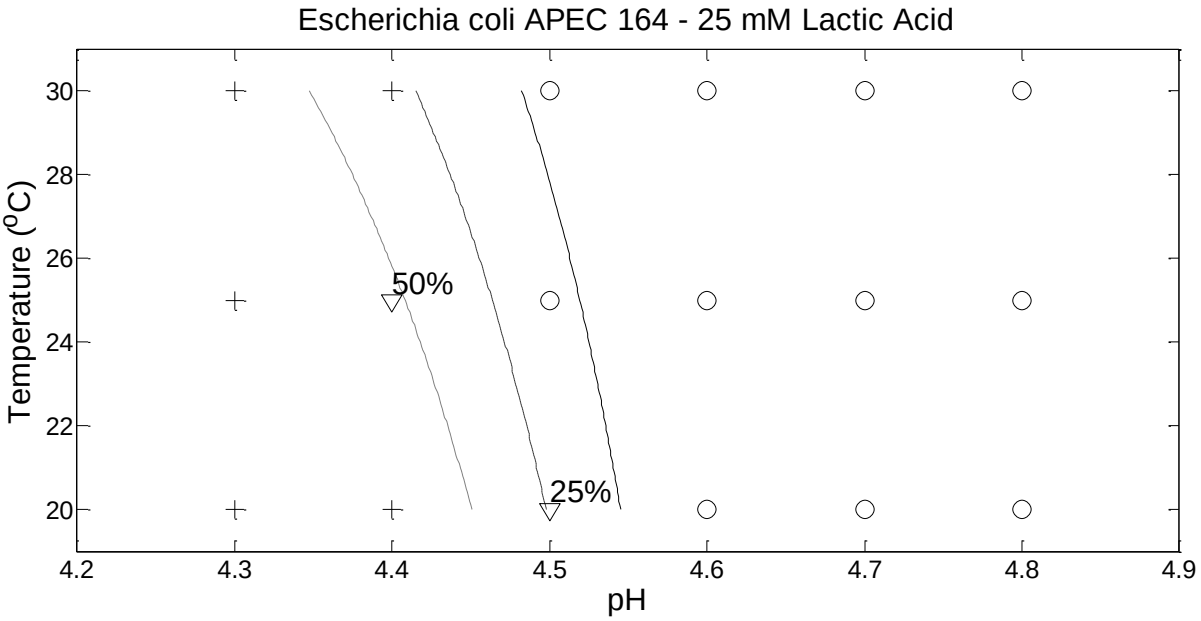
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-312.67	96.91	-3.23	0.00	-546.46	-159.78	0.00	0.00	0.00
pH	74.34	22.90	3.25	0.00	38.23	129.79	1.93E+32	4.02E+16	2.33E+56
LA	-1.08	0.31	-3.53	0.00	-1.92	-0.64	0.34	0.15	0.53
Temp	6.52	2.78	2.35	0.02	1.84	12.78	680.38	6.31	3.56E+05
pH:Temp	-1.39	0.62	-2.23	0.03	-2.79	-0.33	0.25	0.06	0.72

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	155.02	
pH	1	1.90	142	153.12	0.17
LA	1	94.18	141	58.94	0.00
Temp	1	19.28	140	39.66	0.00
pH:Temp	1	7.34	139	32.32	0.01

AIC	42.32
Likelihood Ratio	1.41E-25
Log-Likelihood	-16.16




Escherichia coli APEC 164 - 0 mM Lactic Acid
Temperature (°C)
pH
75%
25%
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

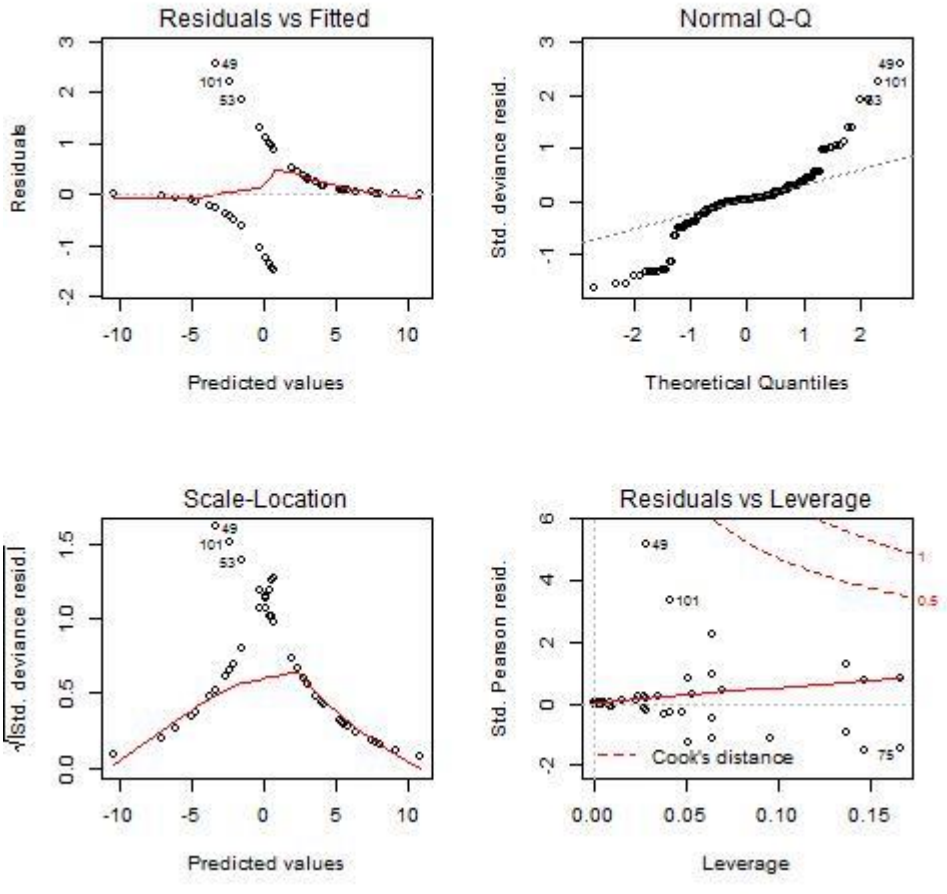

Escherichia coli APEC 164 - 25 mM Lactic Acid
Temperature (°C)
pH
50%
25%
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

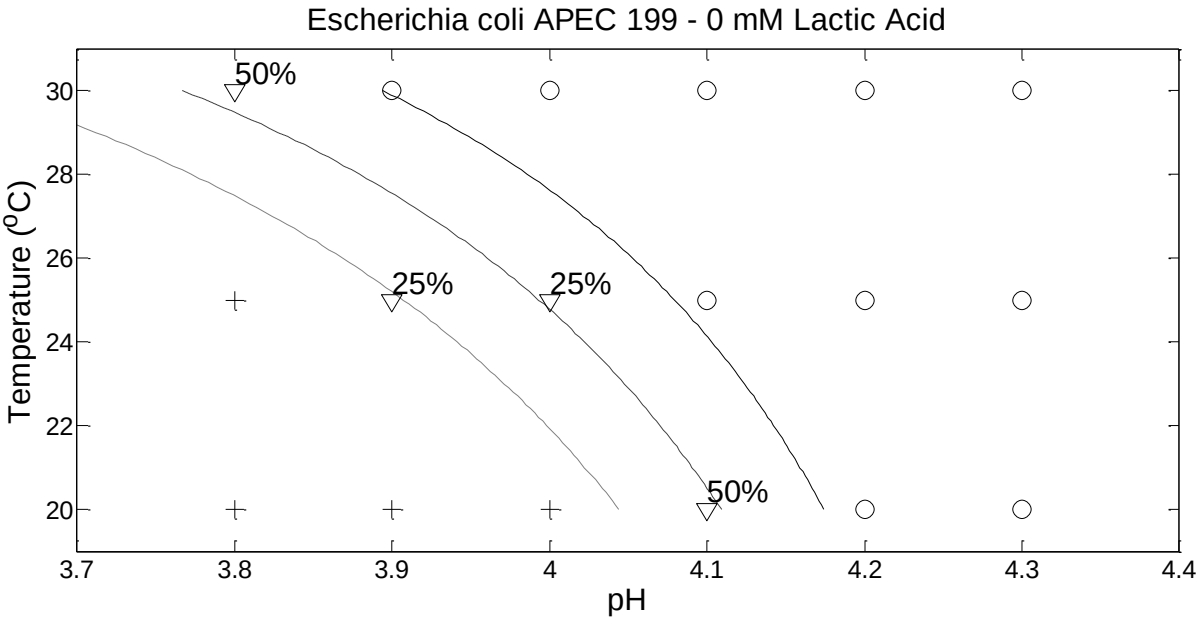
131. *E.coli* APEC199 (Prof. B. Goddeeris (KU Leuven, Belgium))

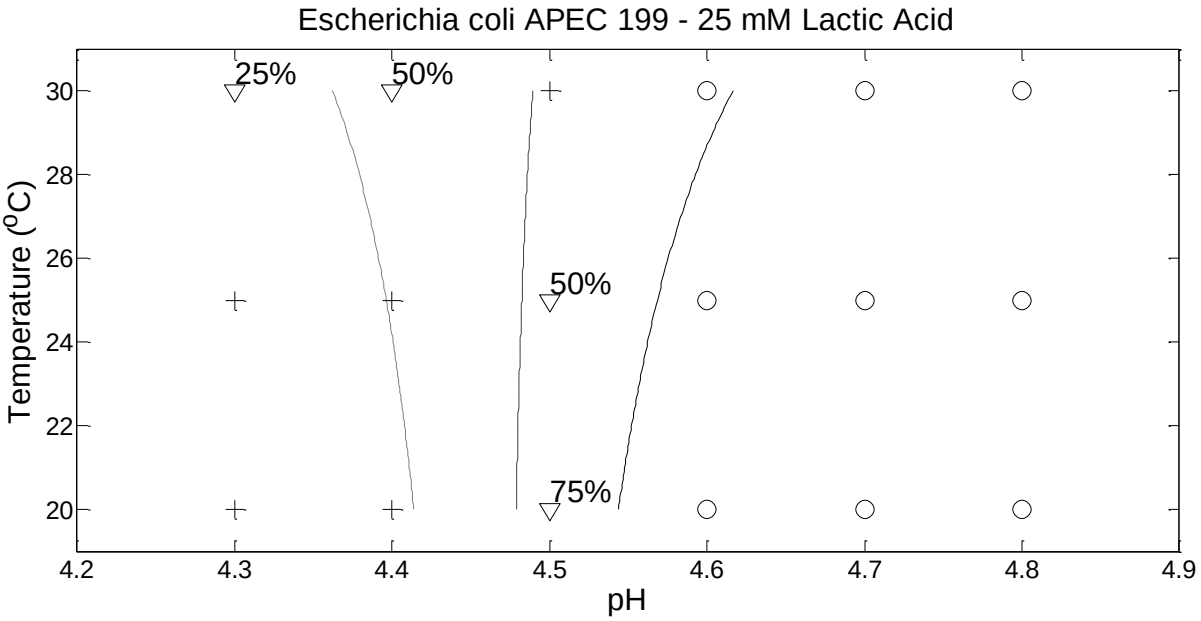
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-286.23	61.97	-4.62	0.00	-427.38	-180.94	0.00	0.00	0.00
pH	66.78	14.49	4.61	0.00	42.15	99.80	1.00E+29	2.02E+18	2.21E+43
LA	-0.50	0.10	-4.97	0.00	-0.74	-0.33	0.61	0.48	0.72
Temp	7.37	1.84	4.01	0.00	4.16	11.44	1590.07	64.16	92978.05
pH:Temp	-1.65	0.42	-3.92	0.00	-2.58	-0.91	0.19	0.08	0.40

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	190.53	
pH	1	21.27	142	169.26	0.00
LA	1	69.25	141	100.01	0.00
Temp	1	14.92	140	85.09	0.00
pH:Temp	1	25.36	139	59.73	0.00

AIC	69.73
Likelihood Ratio	2.62E-27
Log-Likelihood	-29.86




Escherichia coli APEC 199 - 0 mM Lactic Acid
50%
25%
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

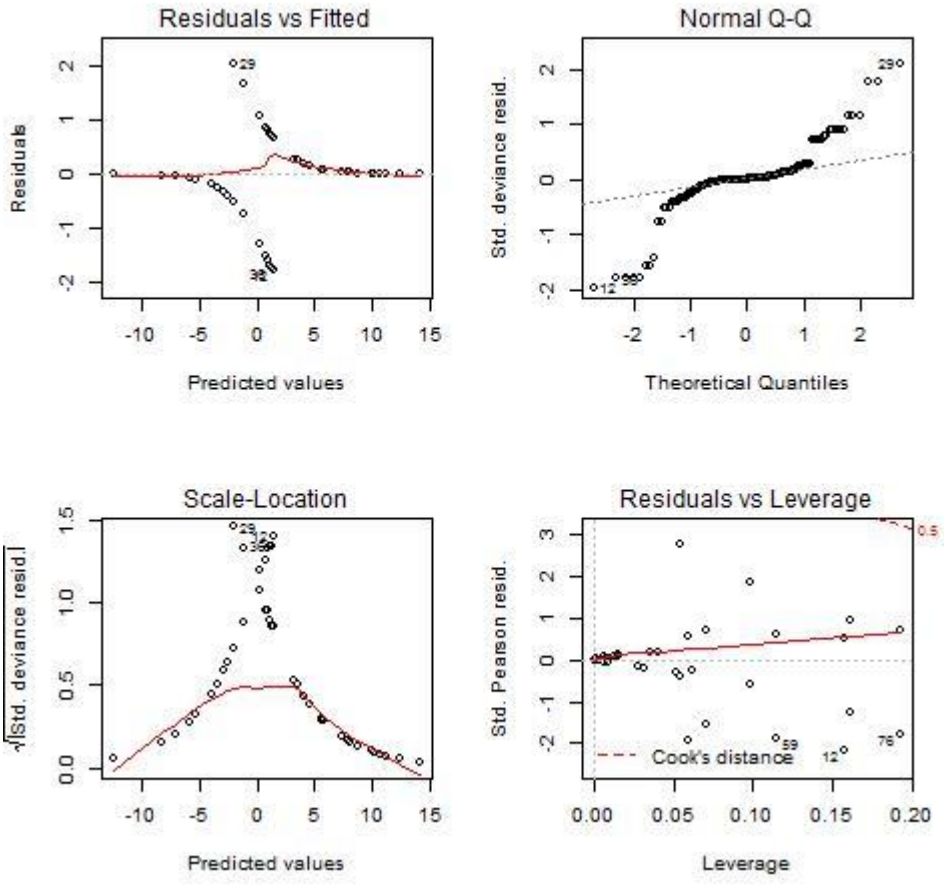

Escherichia coli APEC 199 - 25 mM Lactic Acid
25%
50%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

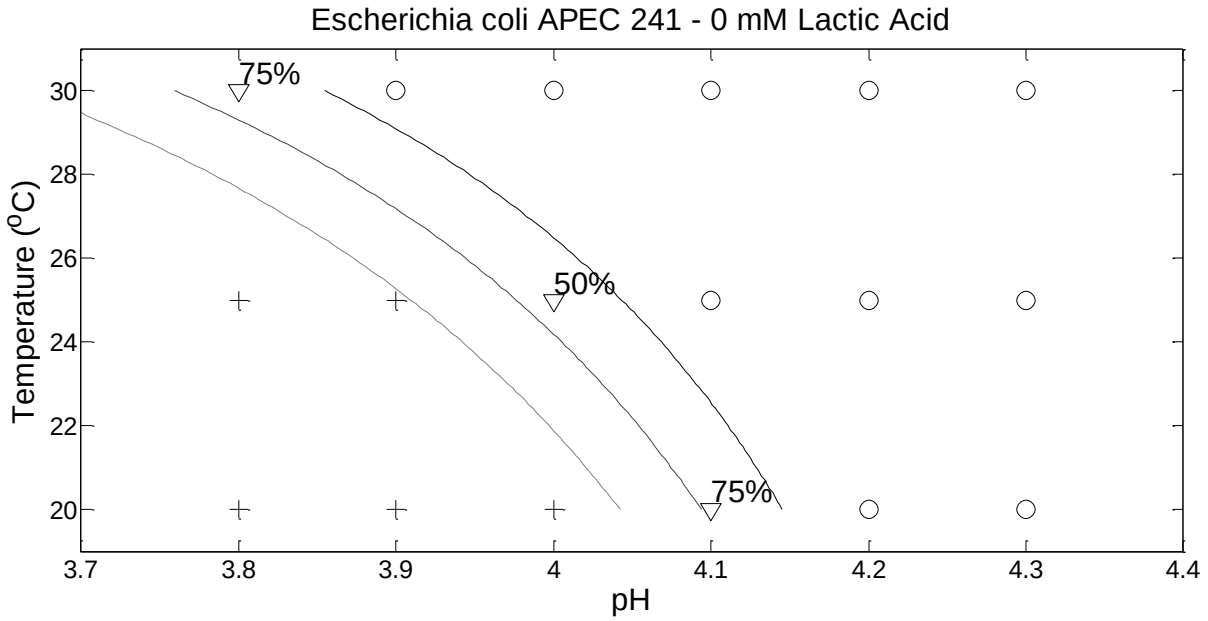
132. *E.coli* APEC241 (Prof. B. Goddeeris (KU Leuven, Belgium))

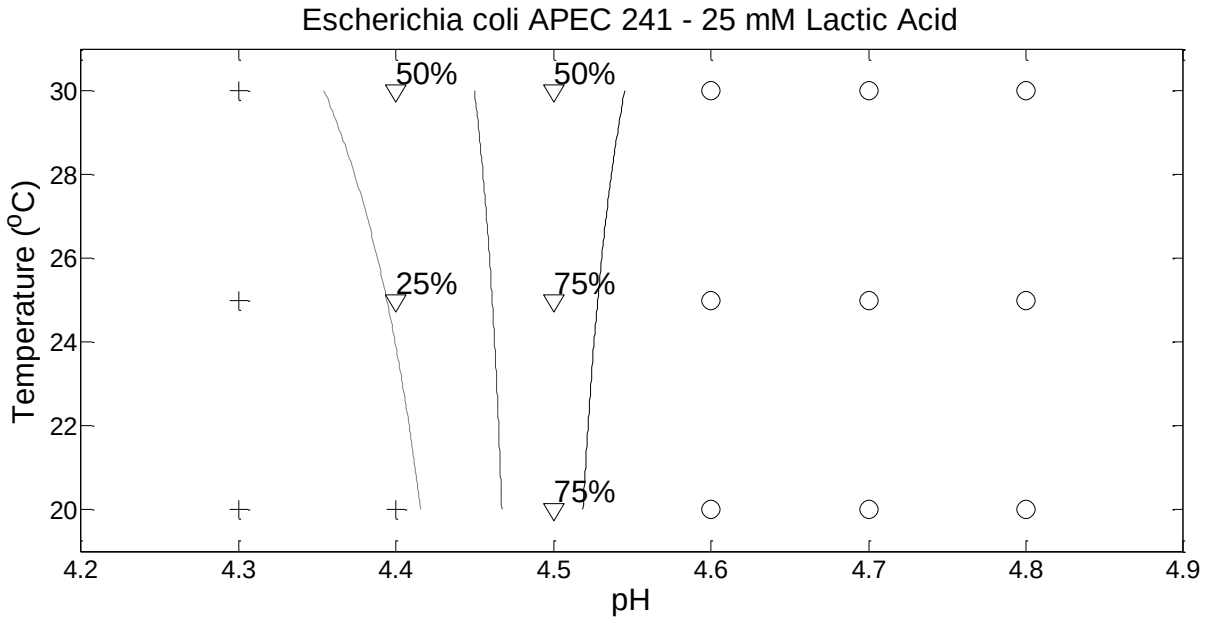
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-349.96	81.34	-4.30	0.00	-541.28	-215.54	0.00	0.00	0.00
pH	81.72	19.03	4.29	0.00	50.25	126.48	3.10E+35	6.67E+21	8.53E+54
LA	-0.64	0.14	-4.50	0.00	-0.98	-0.41	0.53	0.37	0.66
Temp	8.78	2.30	3.82	0.00	4.86	14.03	6504.92	129.31	1.24E+06
pH:Temp	-1.96	0.52	-3.73	0.00	-3.15	-1.06	0.14	0.04	0.35

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	184.67	
pH	1	22.93	142	161.74	0.00
LA	1	70.43	141	91.31	0.00
Temp	1	19.98	140	71.34	0.00
pH:Temp	1	25.39	139	45.95	0.00

AIC	55.95
Likelihood Ratio	5.3E-29
Log-Likelihood	-22.98




Escherichia coli APEC 241 - 0 mM Lactic Acid
75%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

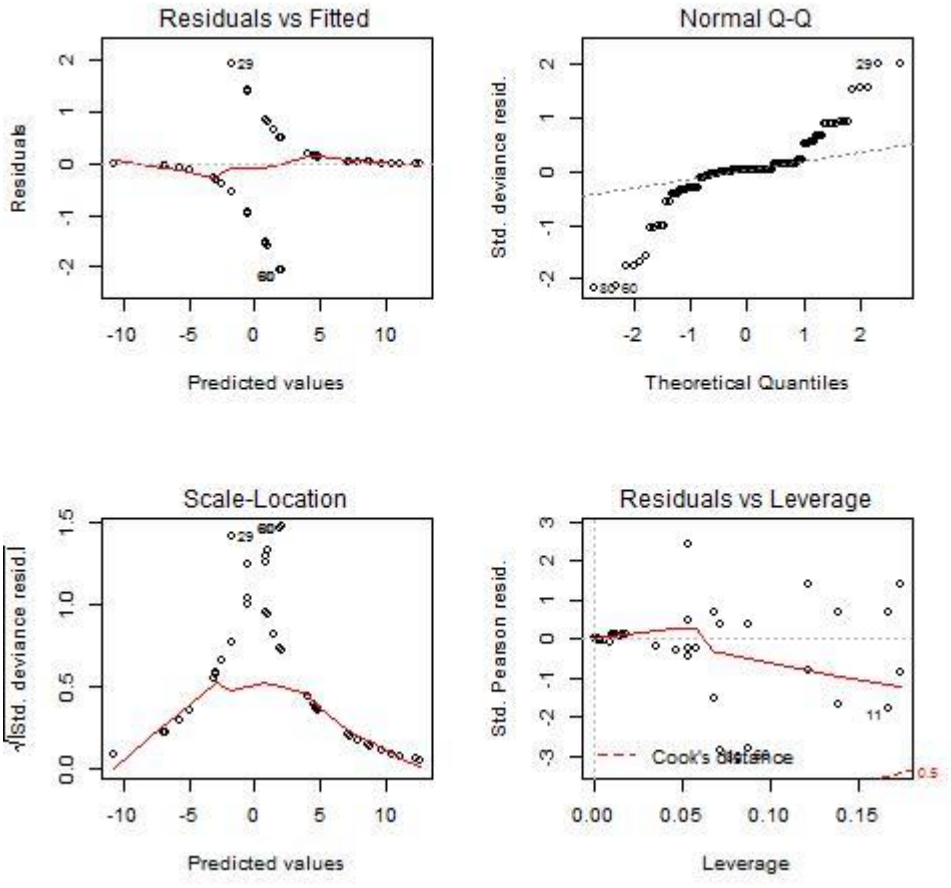

Escherichia coli APEC 241 - 25 mM Lactic Acid
50%
50%
25%
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

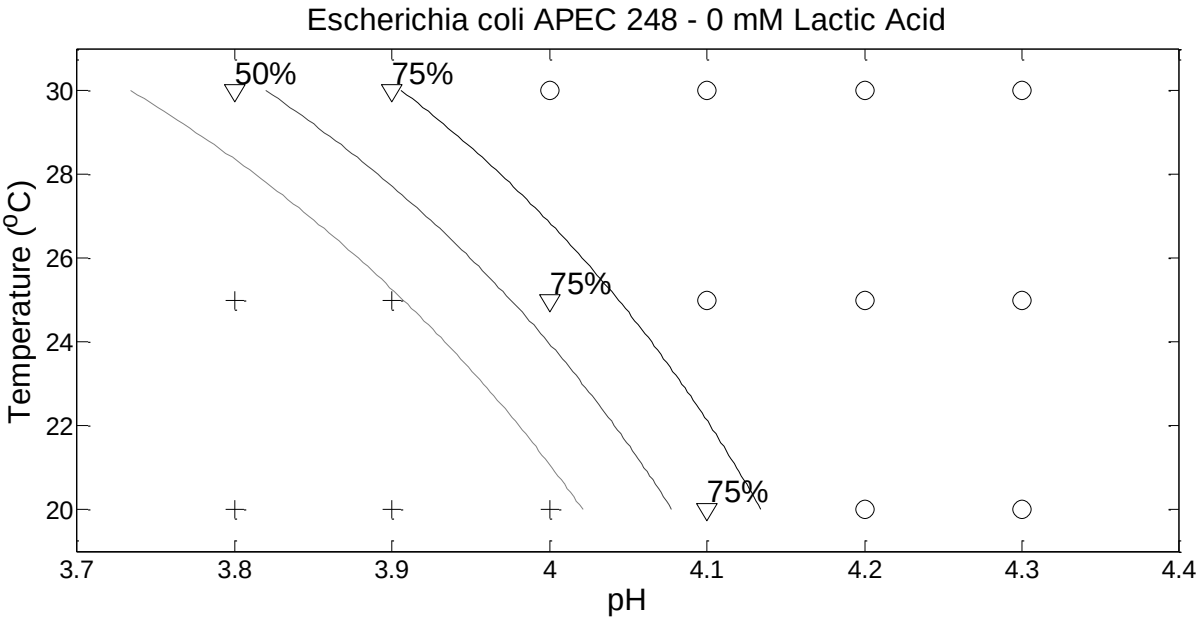
133. *E.coli* APEC248 (Prof. B. Goddeeris (KU Leuven, Belgium))

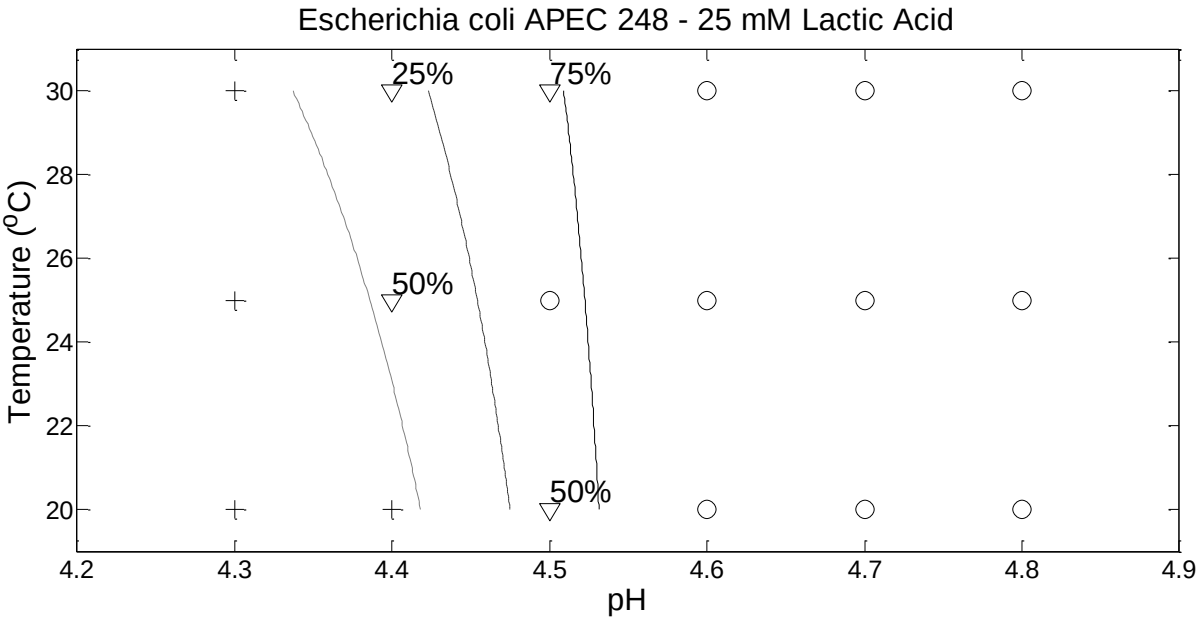
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-279.37	69.40	-4.03	0.00	-441.96	-163.97	0.00	0.00	0.00
pH	65.28	16.24	4.02	0.00	38.22	103.25	2.25E+28	3.98E+16	6.94E+44
LA	-0.62	0.13	-4.65	0.00	-0.93	-0.40	0.54	0.39	0.67
Temp	6.06	1.94	3.13	0.00	2.68	10.43	428.05	14.62	33697.12
pH:Temp	-1.32	0.44	-2.98	0.00	-2.32	-0.54	0.27	0.10	0.58

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	184.67	
pH	1	28.14	142	156.53	0.00
LA	1	75.70	141	80.83	0.00
Temp	1	19.68	140	61.15	0.00
pH:Temp	1	12.62	139	48.52	0.00

AIC	58.52
Likelihood Ratio	1.89E-28
Log-Likelihood	-24.26




Escherichia coli APEC 248 - 0 mM Lactic Acid
50%
75%
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

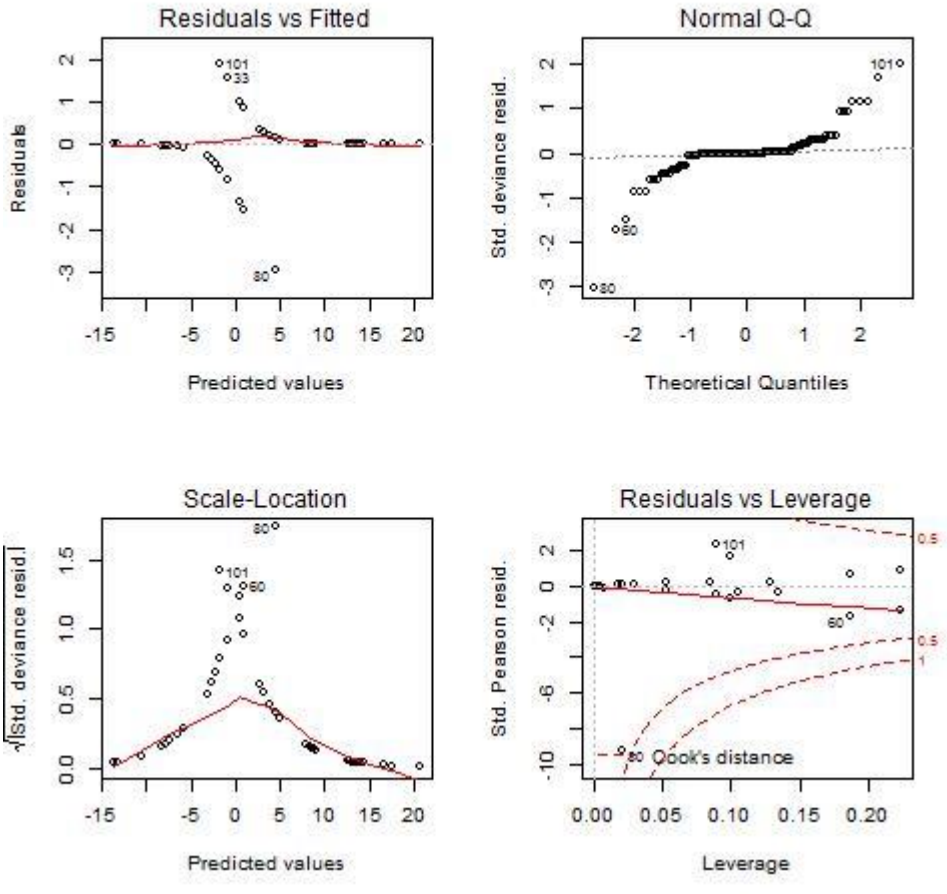

Escherichia coli APEC 248 - 25 mM Lactic Acid
25%
75%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

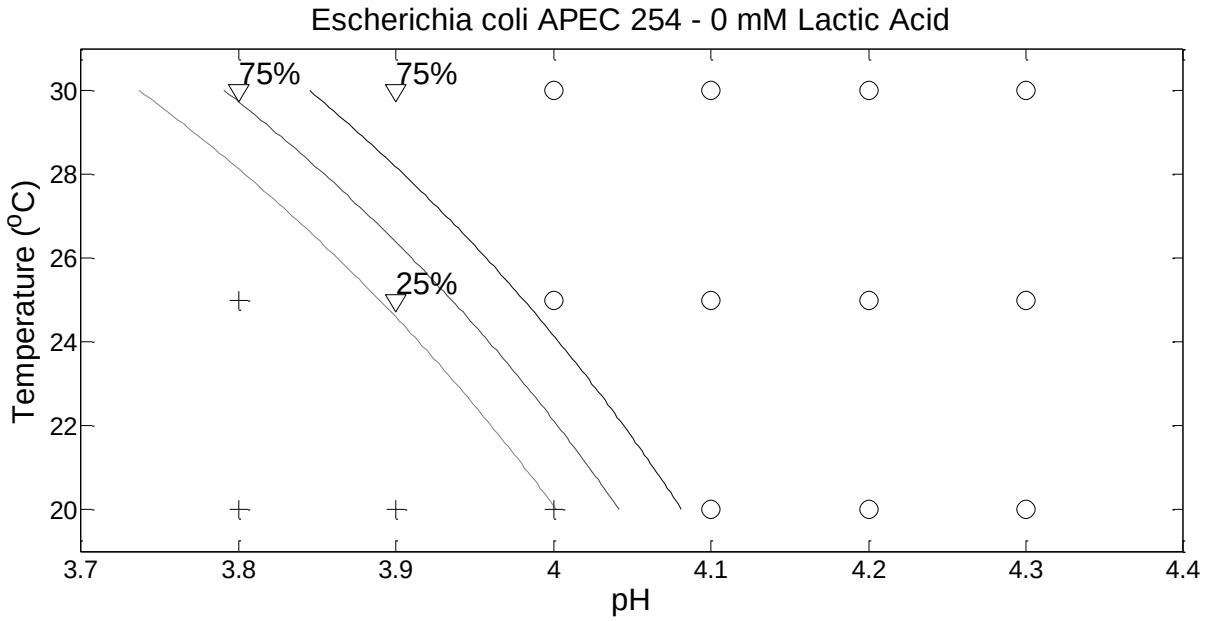
134. *E.coli* APEC254 (Prof. B. Goddeeris (KU Leuven, Belgium))

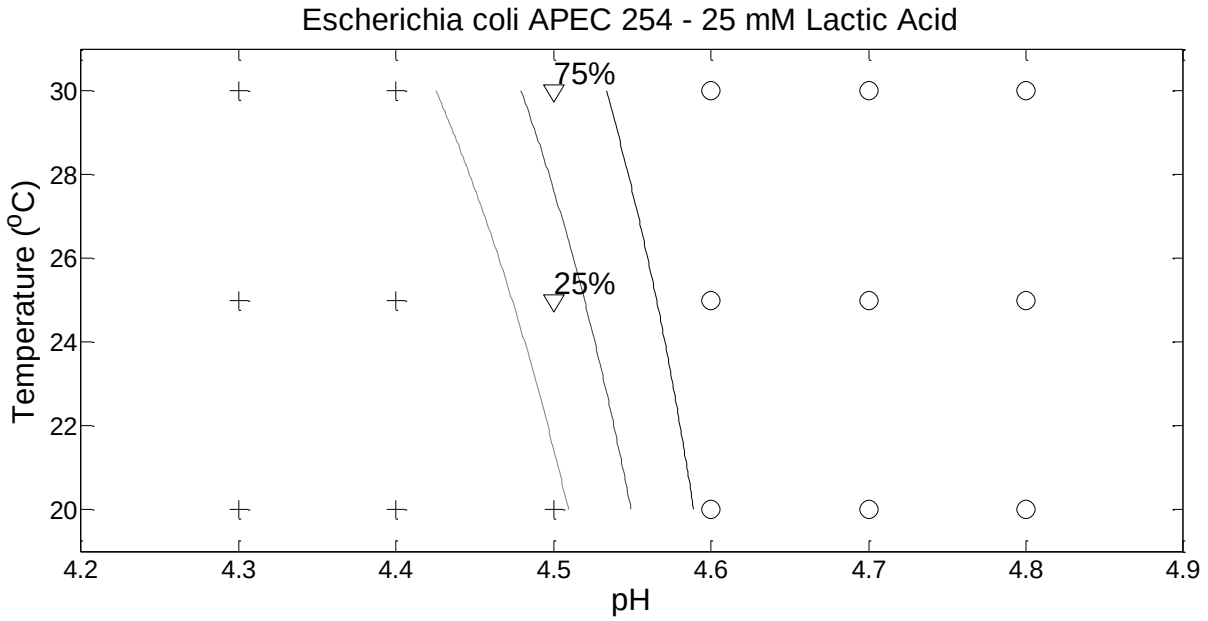
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-360.57	94.66	-3.81	0.00	-608.40	-211.28	0.00	0.00	0.00
pH	84.17	22.26	3.78	0.00	49.17	142.91	3.59E+36	2.26E+21	1.17E+62
LA	-1.12	0.28	-3.95	0.00	-1.88	-0.69	0.33	0.15	0.50
Temp	6.88	2.24	3.06	0.00	3.18	12.49	968.99	24.10	265339.00
pH:Temp	-1.45	0.51	-2.86	0.00	-2.71	-0.61	0.23	0.07	0.54

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	189.48	
pH	1	12.50	142	176.98	0.00
LA	1	104.15	141	72.83	0.00
Temp	1	28.15	140	44.68	0.00
pH:Temp	1	13.95	139	30.73	0.00

AIC	40.73
Likelihood Ratio	2.71E-33
Log-Likelihood	-15.36




Escherichia coli APEC 254 - 0 mM Lactic Acid
75%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

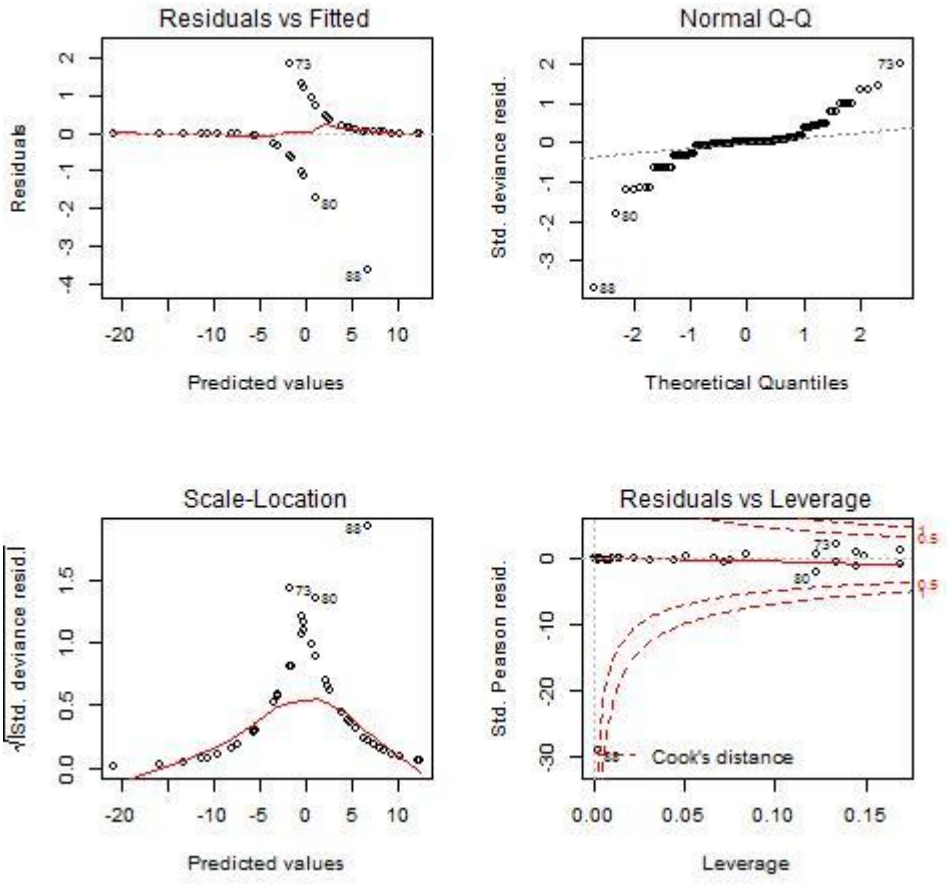

Escherichia coli APEC 254 - 25 mM Lactic Acid
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

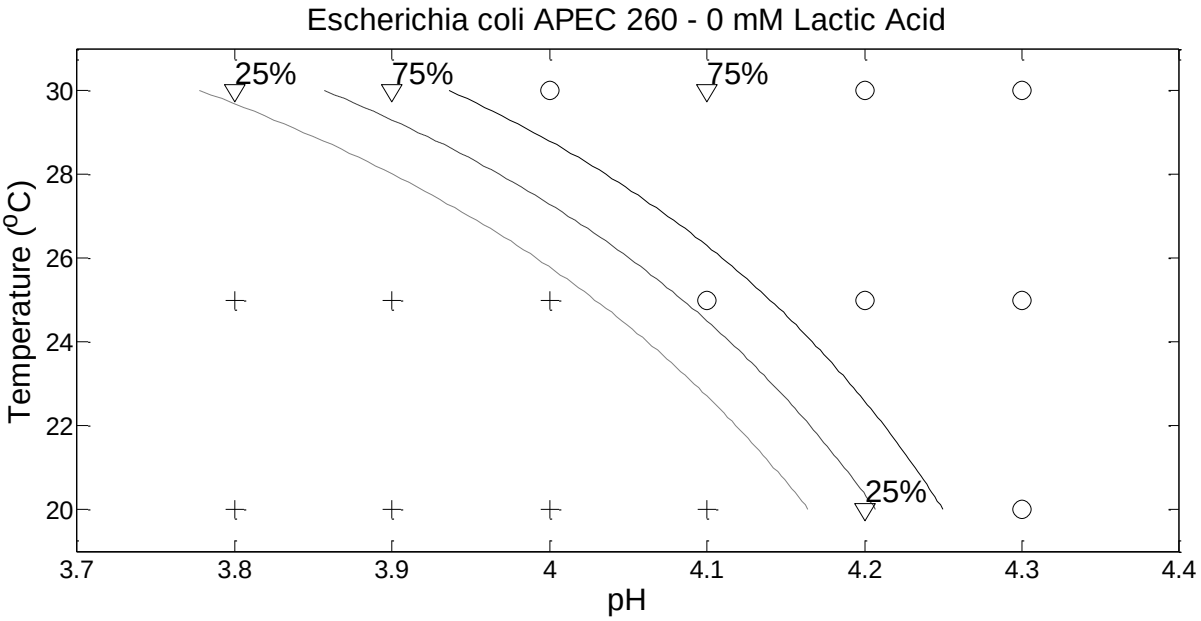
135. *E.coli* APEC260 (Prof. B. Goddeeris (KU Leuven, Belgium))

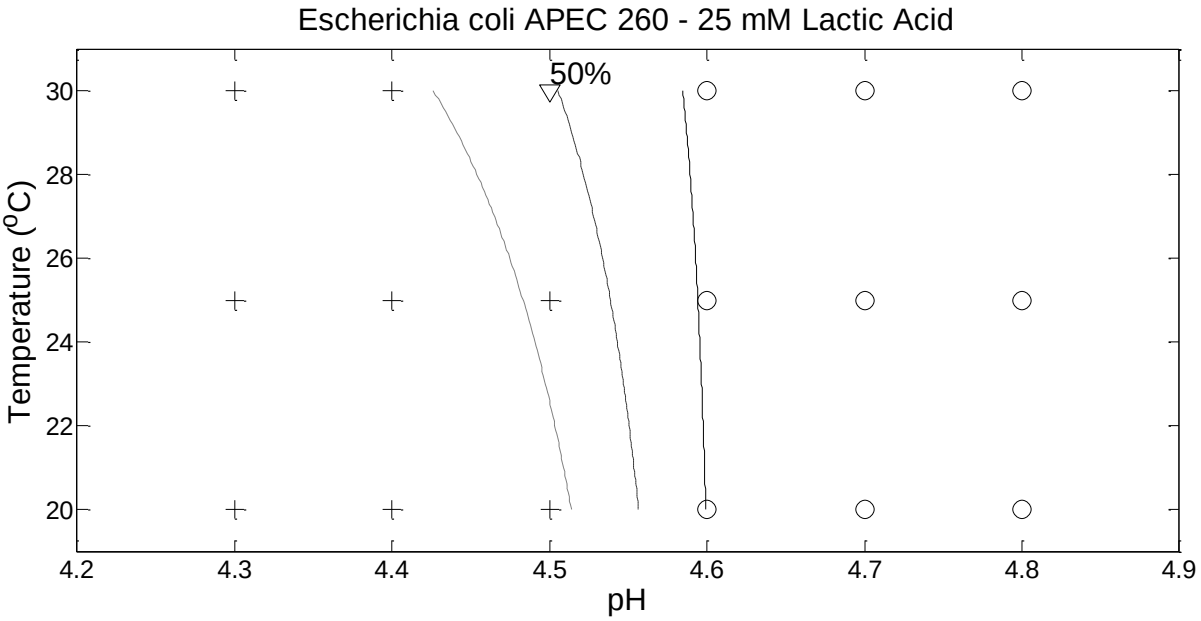
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-435.23	105.85	-4.11	0.00	-692.82	-263.61	0.00	0.00	0.00
pH	98.84	24.16	4.09	0.00	59.70	157.82	8.44E+42	8.42E+25	3.47E+68
LA	-0.72	0.16	-4.40	0.00	-1.11	-0.46	0.49	0.33	0.63
Temp	10.94	2.94	3.72	0.00	6.09	18.08	5.65E+04	439.26	7.10E+07
pH:Temp	-2.37	0.65	-3.62	0.00	-3.96	-1.29	0.09	0.02	0.28

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	199.52	
pH	1	29.99	142	169.53	0.00
LA	1	70.06	141	99.47	0.00
Temp	1	29.28	140	70.19	0.00
pH:Temp	1	28.37	139	41.82	0.00

AIC	51.82
Likelihood Ratio	4.57E-33
Log-Likelihood	-20.91




Escherichia coli APEC 260 - 0 mM Lactic Acid
25%
75%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

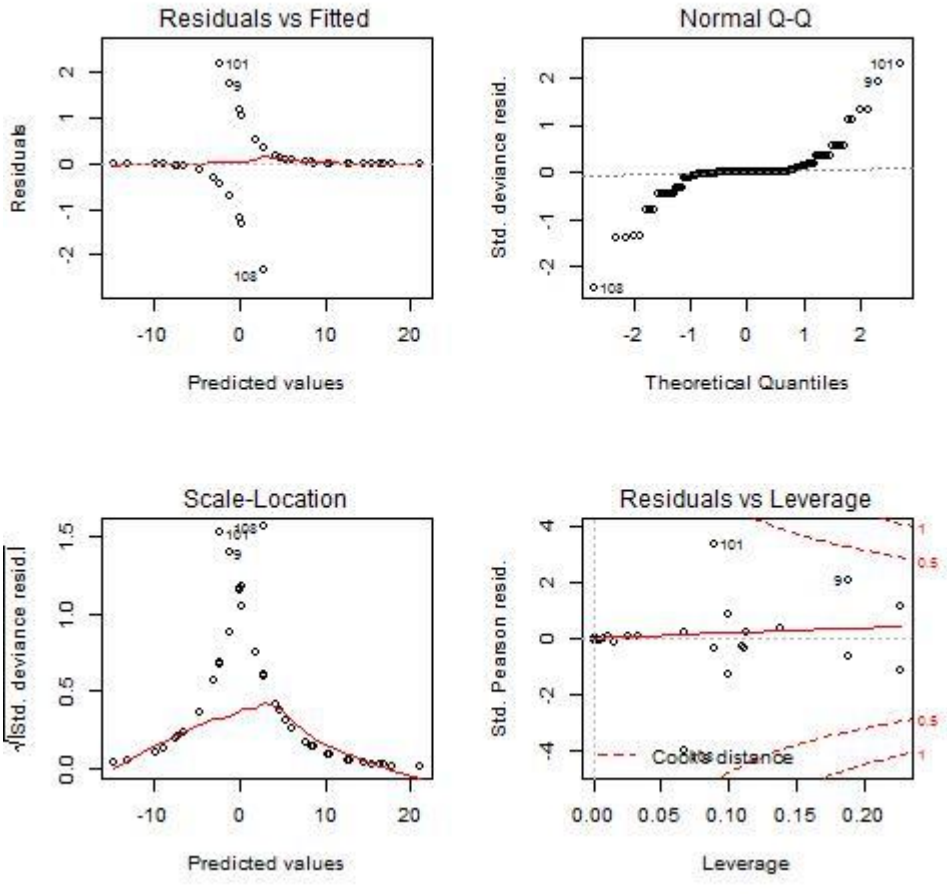

Escherichia coli APEC 260 - 25 mM Lactic Acid
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

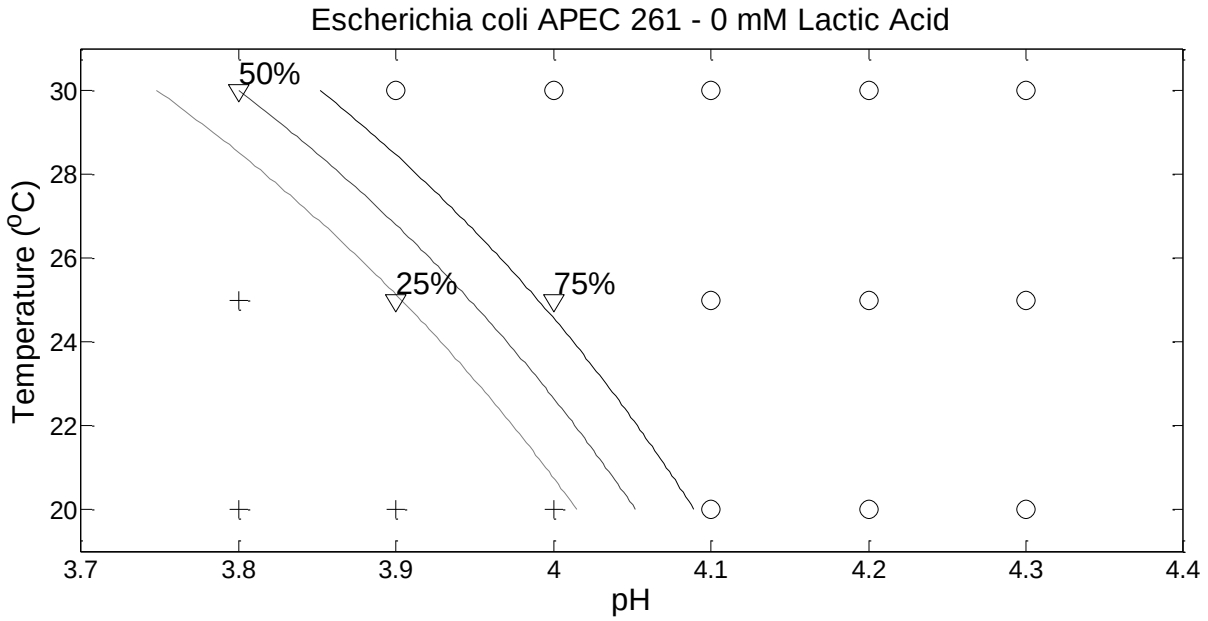
136. *E.coli* APEC261 (Prof. B. Goddeeris (KU Leuven, Belgium))

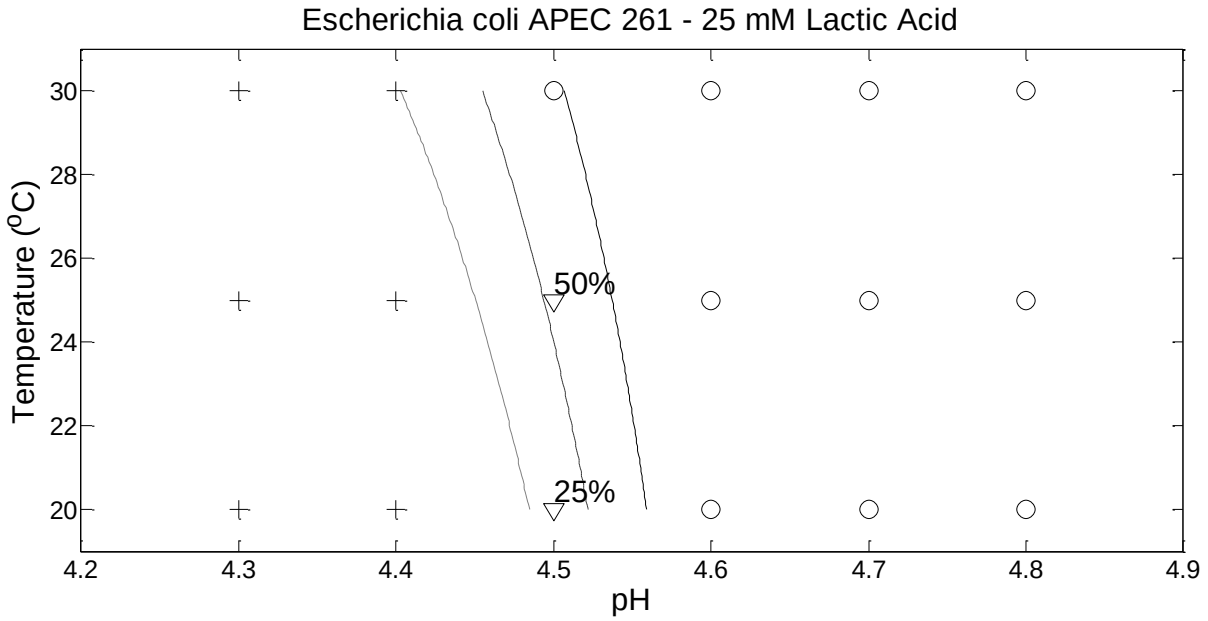
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-395.18	115.21	-3.43	0.00	-707.38	-220.57	0.00	0.00	0.00
pH	92.27	27.01	3.42	0.00	51.33	165.28	1.18E+40	1.96E+22	6.04E+71
LA	-1.11	0.29	-3.89	0.00	-1.86	-0.67	0.33	0.16	0.51
Temp	7.81	2.82	2.77	0.01	3.38	15.40	2469.58	29.47	4.86E+06
pH:Temp	-1.66	0.63	-2.63	0.01	-3.36	-0.66	0.19	0.03	0.52

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	187.20	
pH	1	17.45	142	169.74	0.00
LA	1	97.61	141	72.14	0.00
Temp	1	28.62	140	43.52	0.00
pH:Temp	1	13.41	139	30.10	0.00

AIC	40.10
Likelihood Ratio	6.14E-33
Log-Likelihood	-15.05




Escherichia coli APEC 261 - 0 mM Lactic Acid
50%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

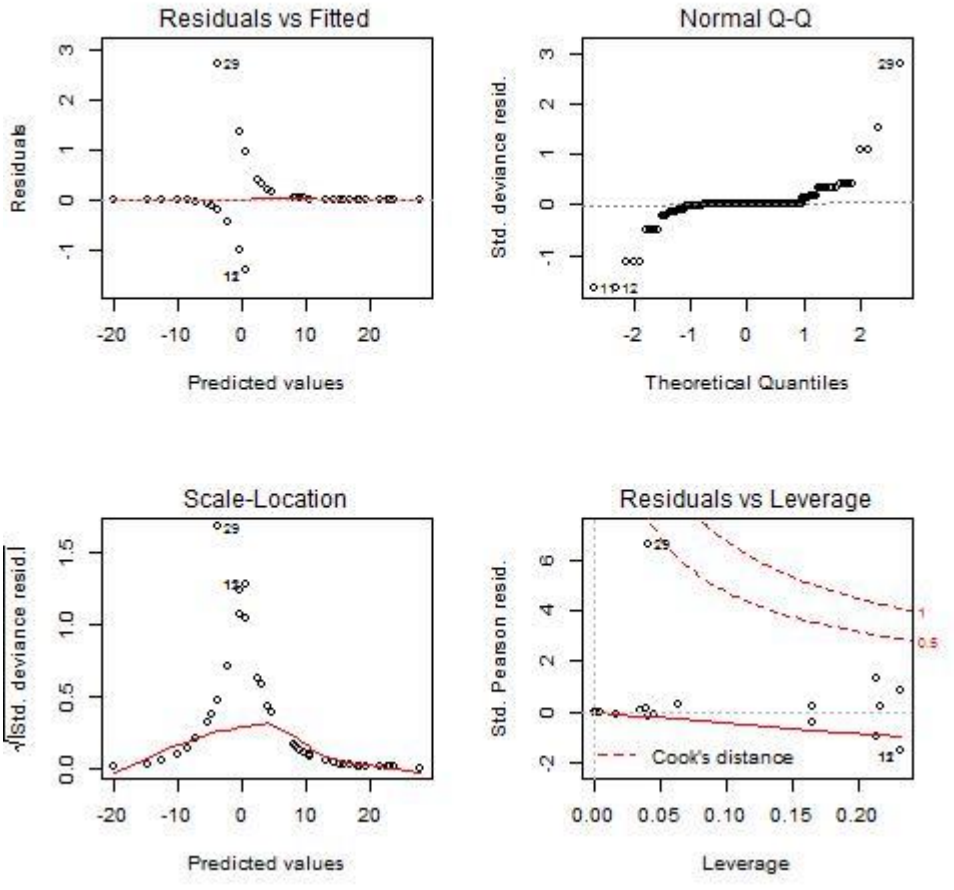

Escherichia coli APEC 261 - 25 mM Lactic Acid
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

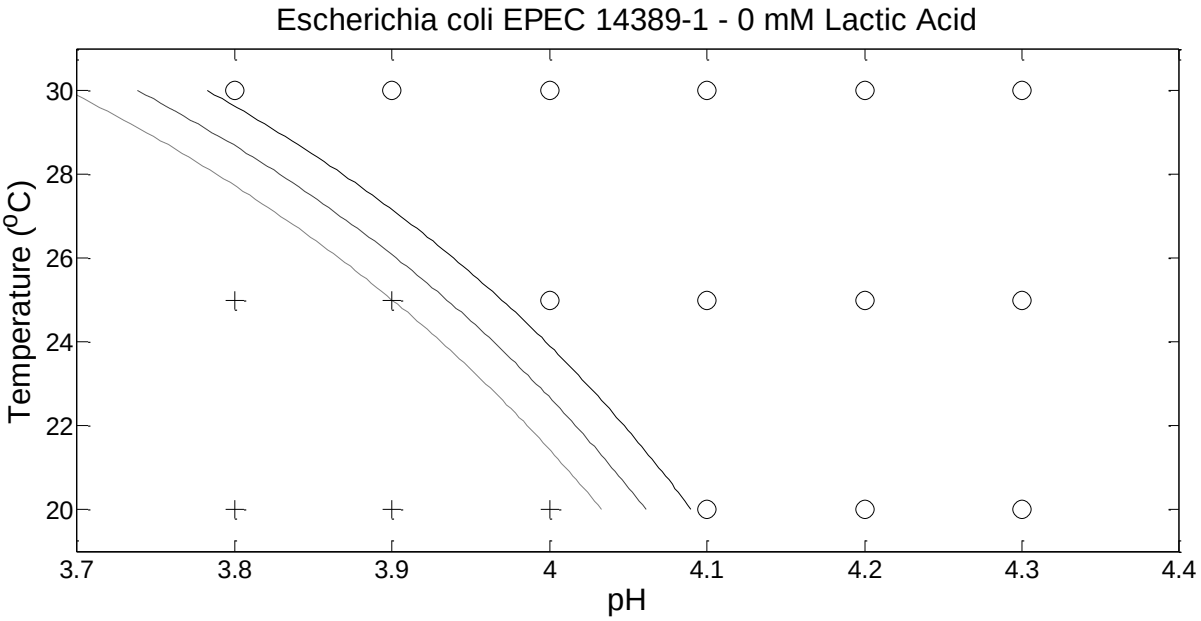
137. *E.coli* EPEC 14389-1

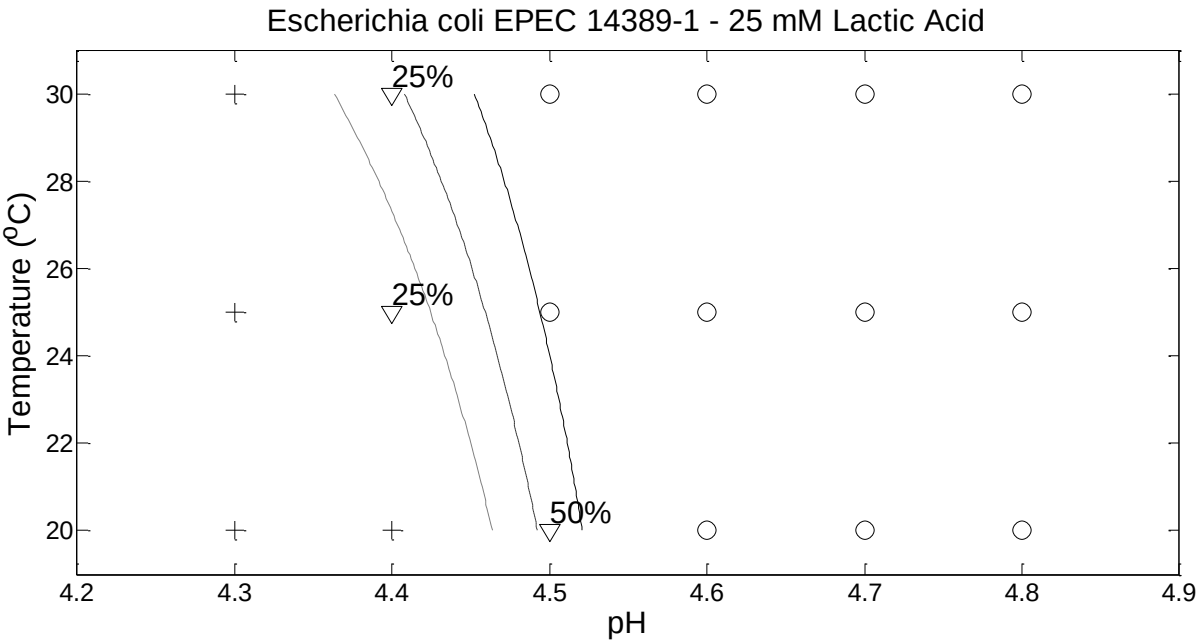
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-567.50	170.90	-3.32	0.00	-1076.55	-316.82	0.00	0.00	0.00
pH	131.85	39.52	3.34	0.00	73.65	248.98	1.82E+57	9.72E+31	1.35E+108
LA	-1.33	0.40	-3.31	0.00	-2.47	-0.75	0.27	0.08	0.47
Temp	12.74	4.33	2.94	0.00	6.42	26.97	3.41E+05	616.06	5.16E+11
pH:Temp	-2.74	0.95	-2.88	0.00	-5.87	-1.34	0.06	0.00	0.26

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	177.26	
pH	1	18.40	142	158.86	0.00
LA	1	78.76	141	80.09	0.00
Temp	1	34.54	140	45.56	0.00
pH:Temp	1	24.55	139	21.01	0.00

AIC	31.01
Likelihood Ratio	9.31E-33
Log-Likelihood	-10.51




Escherichia coli EPEC 14389-1 - 0 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

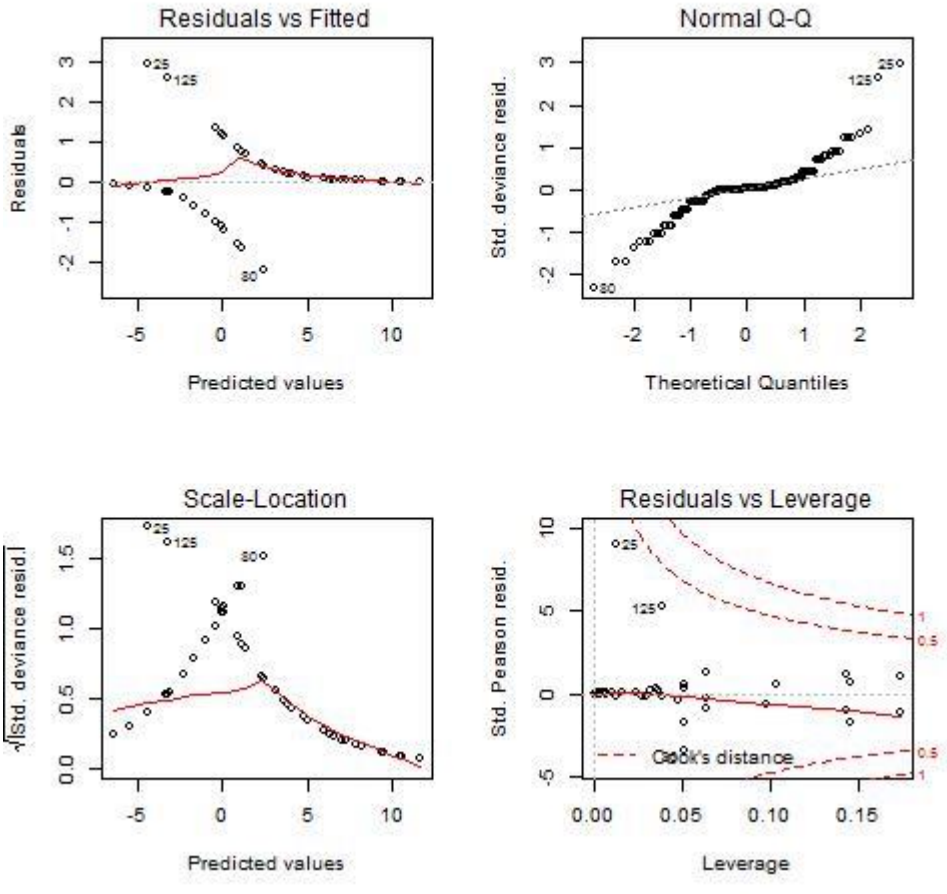

Escherichia coli EPEC 14389-1 - 25 mM Lactic Acid
Temperature (°C)
25%
25%
50%
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

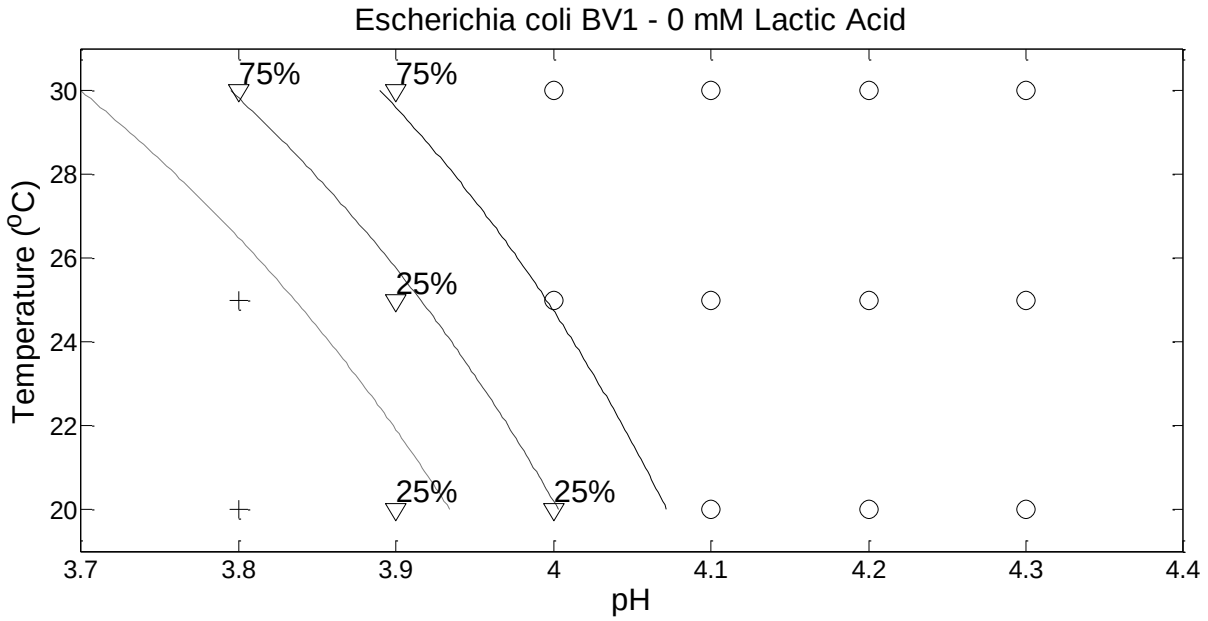
138. *E.coli* BV1 - isolated from slug

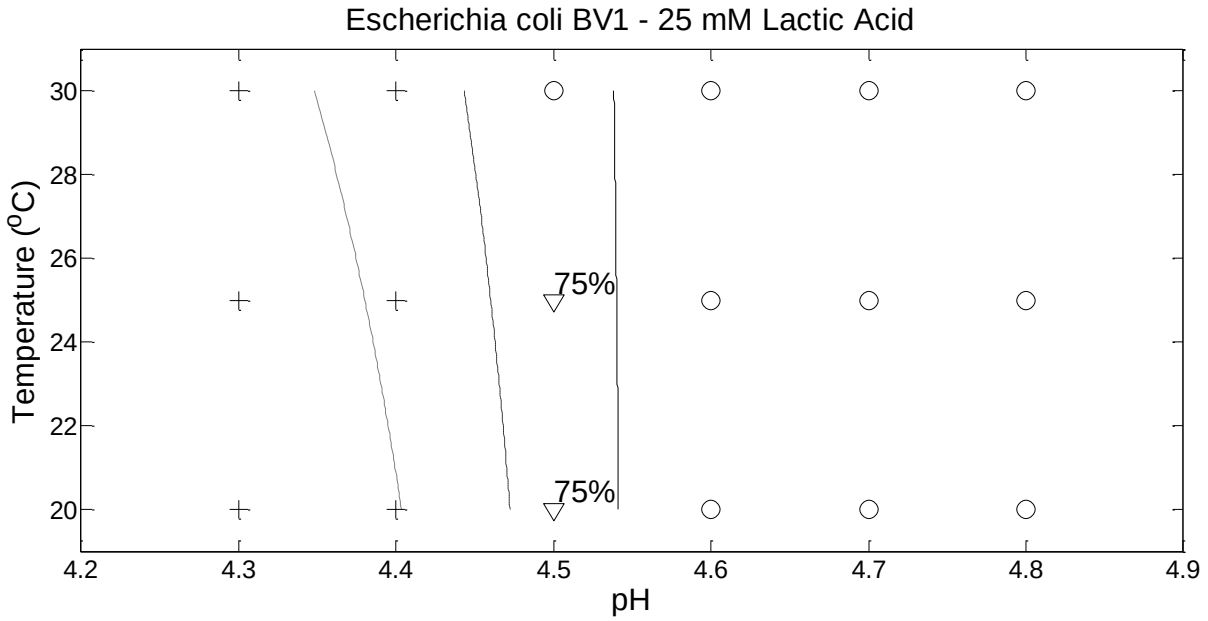
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-207.67	50.49	-4.11	0.00	-321.55	-121.12	0.00	0.00	0.00
pH	49.48	12.03	4.11	0.00	28.88	76.65	3.08E+21	3.48E+12	1.94E+33
LA	-0.60	0.12	-4.83	0.00	-0.89	-0.40	0.55	0.41	0.67
Temp	4.00	1.45	2.77	0.01	1.38	7.11	54.70	3.96	1229.88
pH:Temp	-0.88	0.34	-2.61	0.01	-1.60	-0.26	0.41	0.20	0.77

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	177.26	
pH	1	16.26	142	161.00	0.00
LA	1	86.46	141	74.54	0.00
Temp	1	11.39	140	63.15	0.00
pH:Temp	1	8.21	139	54.93	0.00

AIC	64.93
Likelihood Ratio	1.7E-25
Log-Likelihood	-27.47




Escherichia coli BV1 - 0 mM Lactic Acid
75%
75%
25%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

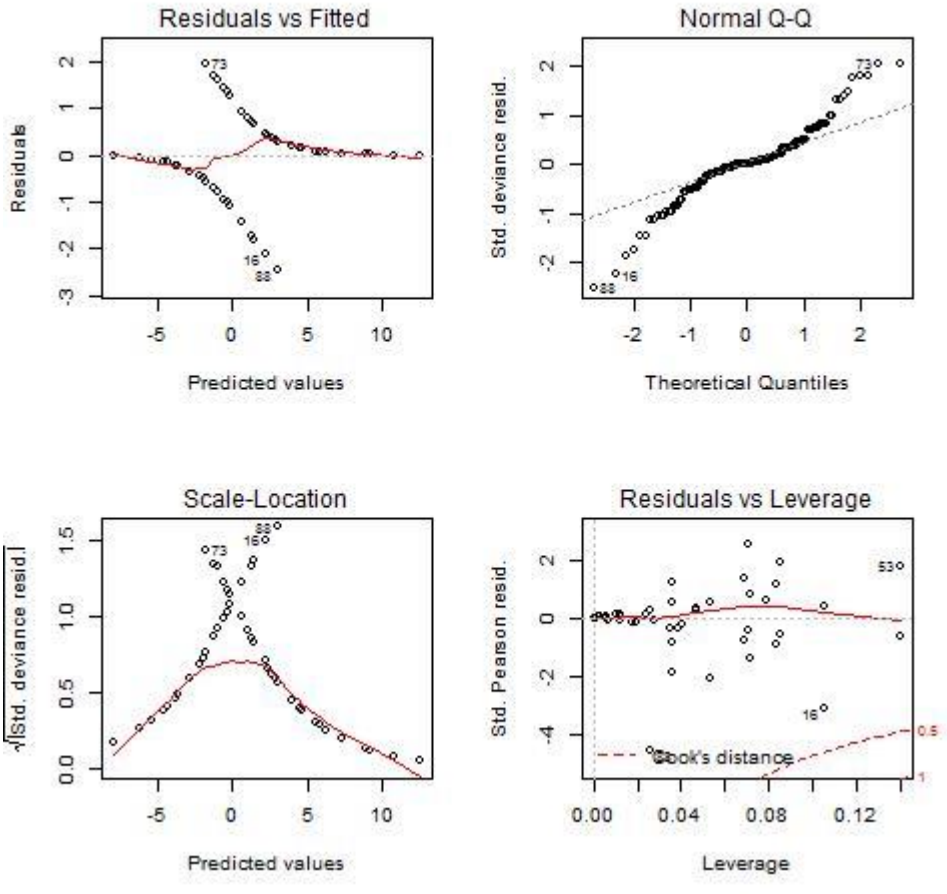

Escherichia coli BV1 - 25 mM Lactic Acid
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

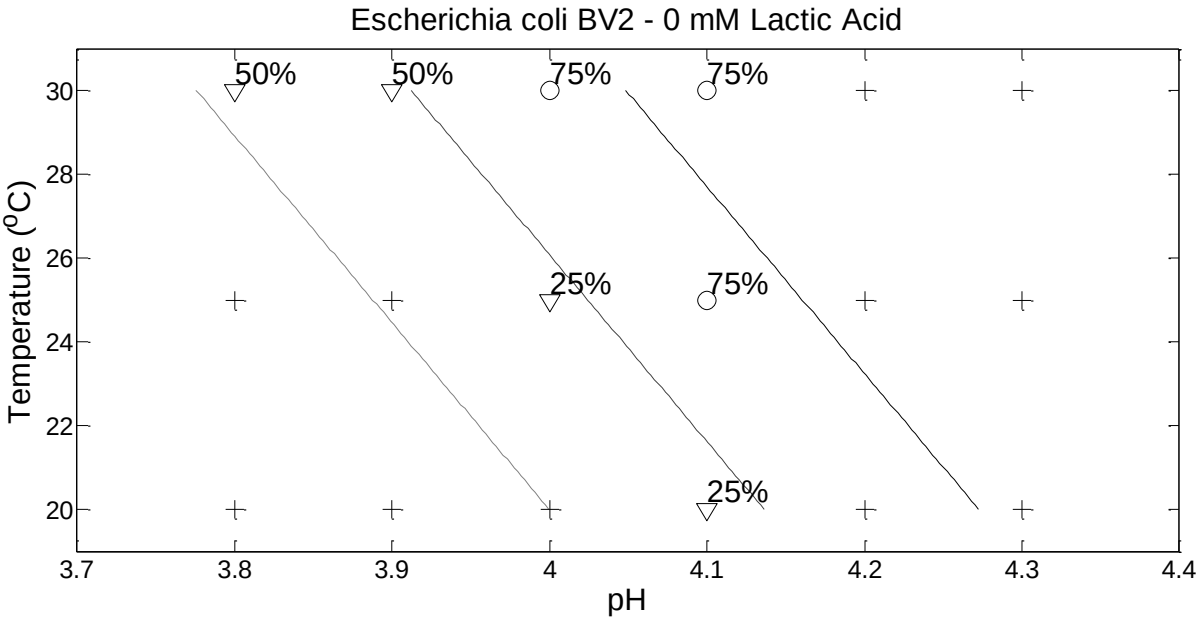
139. *E.coli* BV2 - isolated from river water

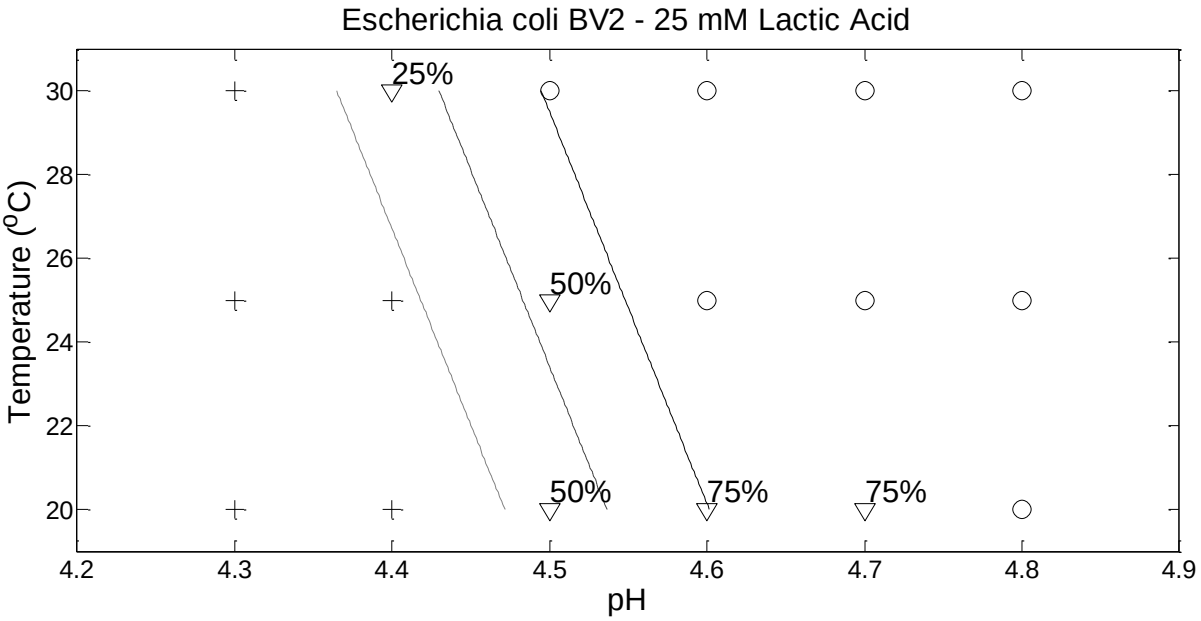
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-73.85	15.51	-4.76	0.00	-109.07	-47.41	0.00	0.00	0.00
pH	16.11	3.48	4.63	0.00	10.16	24.01	9.91E+06	2.59E+04	2.69E+10
LA	-3.47	1.49	-2.33	0.02	-7.08	-1.01	0.03	0.00	0.37
Temp	0.36	0.10	3.71	0.00	0.19	0.58	1.43	1.21	1.78
pH:LA	0.71	0.34	2.12	0.03	0.15	1.52	2.03	1.16	4.55

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	196.25	
pH	1	35.16	142	161.10	0.00
LA	1	66.08	141	95.01	0.00
Temp	1	19.17	140	75.84	0.00
pH:LA	1	6.62	139	69.22	0.01

AIC	79.22
Likelihood Ratio	1.68E-26
Log-Likelihood	-34.61




Escherichia coli BV2 - 0 mM Lactic Acid
50%
50%
75%
75%
25%
75%
25%
Temperature (°C)
pH
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
20
22
24
26
28
30

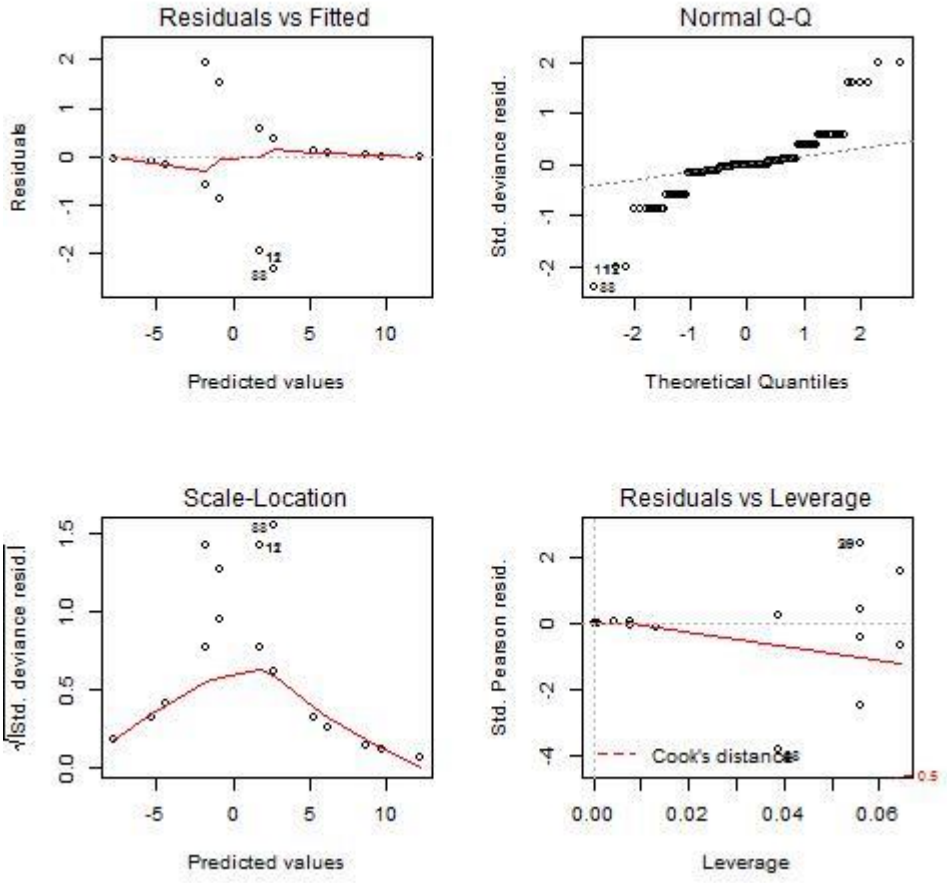

Escherichia coli BV2 - 25 mM Lactic Acid
25%
50%
50%
75%
75%
Temperature (°C)
pH
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
20
22
24
26
28
30

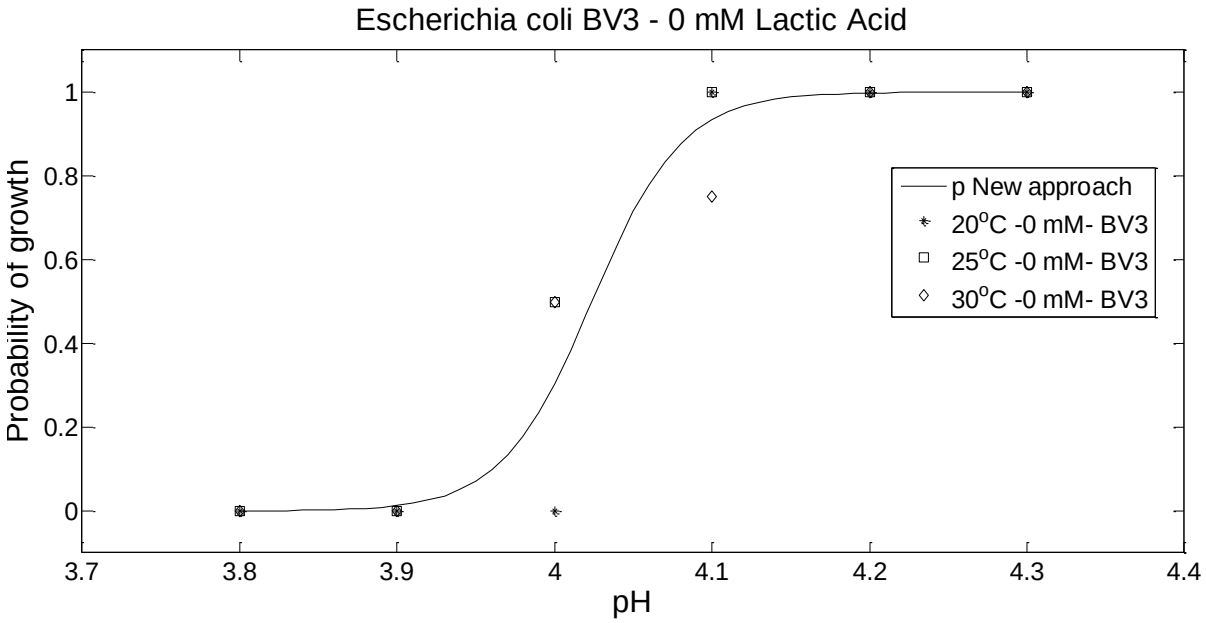
140. *E.coli* BV3 - isolated from rabbit feces

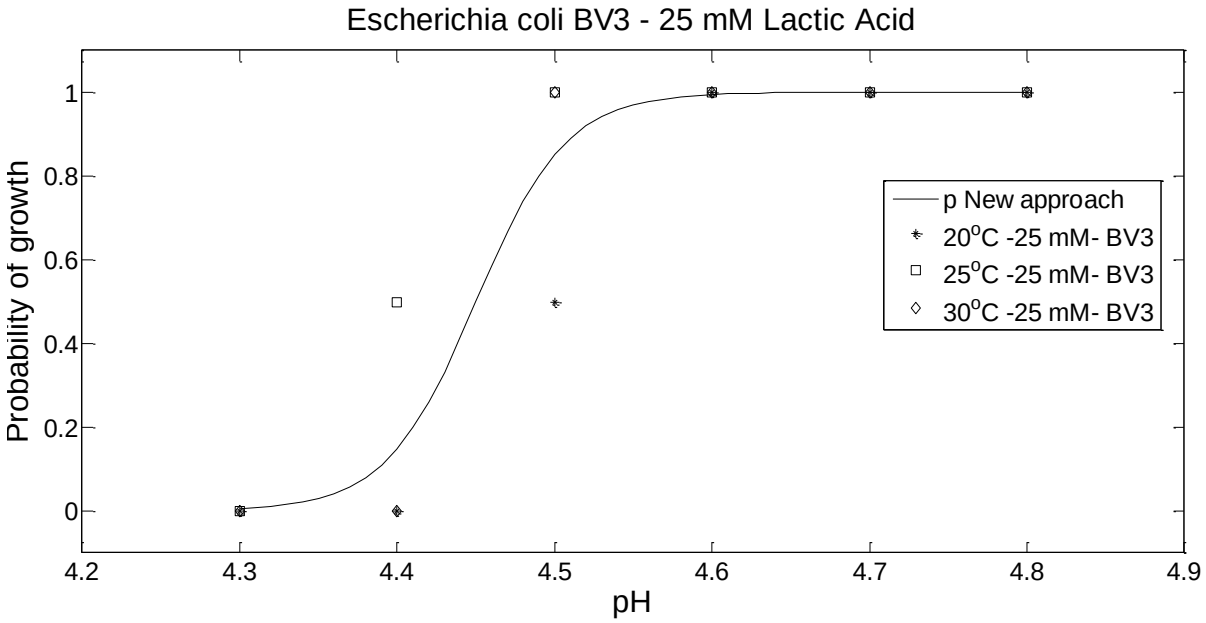
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-140.11	28.60	-4.90	0.00	-207.51	-93.43	0.00	0.00	0.00
pH	34.82	7.12	4.89	0.00	23.22	51.62	1.33E+15	1.21E+10	2.62E+22
LA	-0.59	0.13	-4.68	0.00	-0.90	-0.39	0.55	0.41	0.68

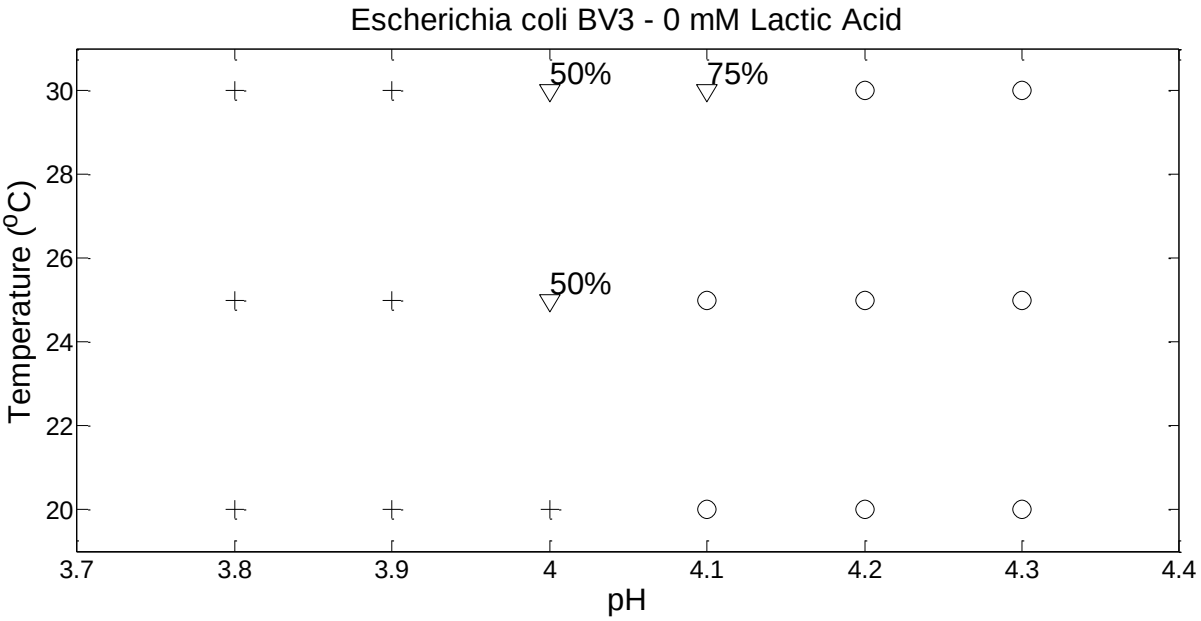
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	193.33	
pH	1	52.10	142	141.23	0.00
LA	1	96.64	141	44.59	0.00

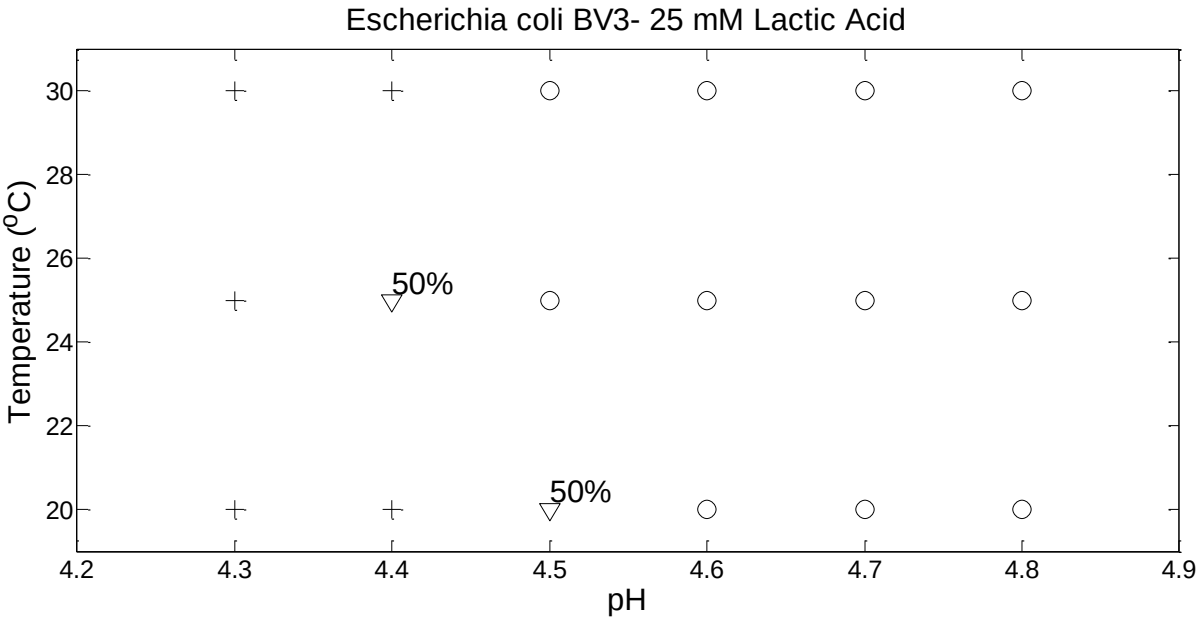
AIC	50.59
Likelihood Ratio	5.04E-33
Log-Likelihood	-22.30




Escherichia coli BV3 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- BV3
25°C -0 mM- BV3
30°C -0 mM- BV3
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli BV3 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- BV3
25°C -25 mM- BV3
30°C -25 mM- BV3
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli BV3 - 0 mM Lactic Acid
50%
75%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

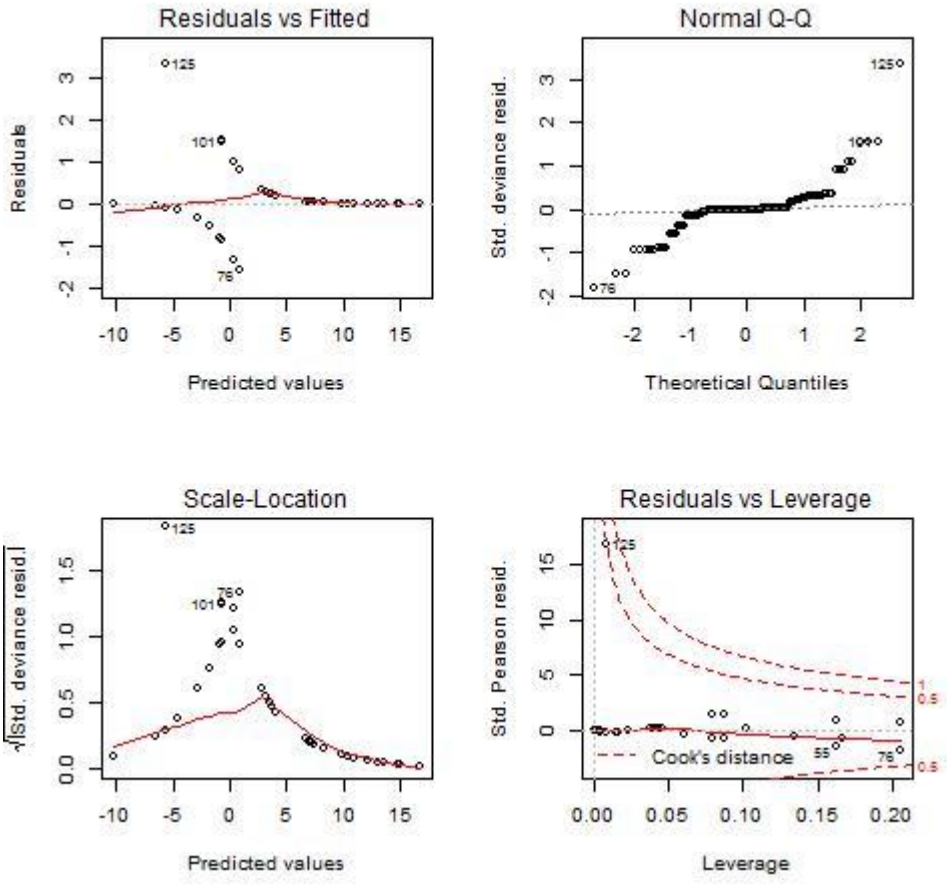

Escherichia coli BV3- 25 mM Lactic Acid
50%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

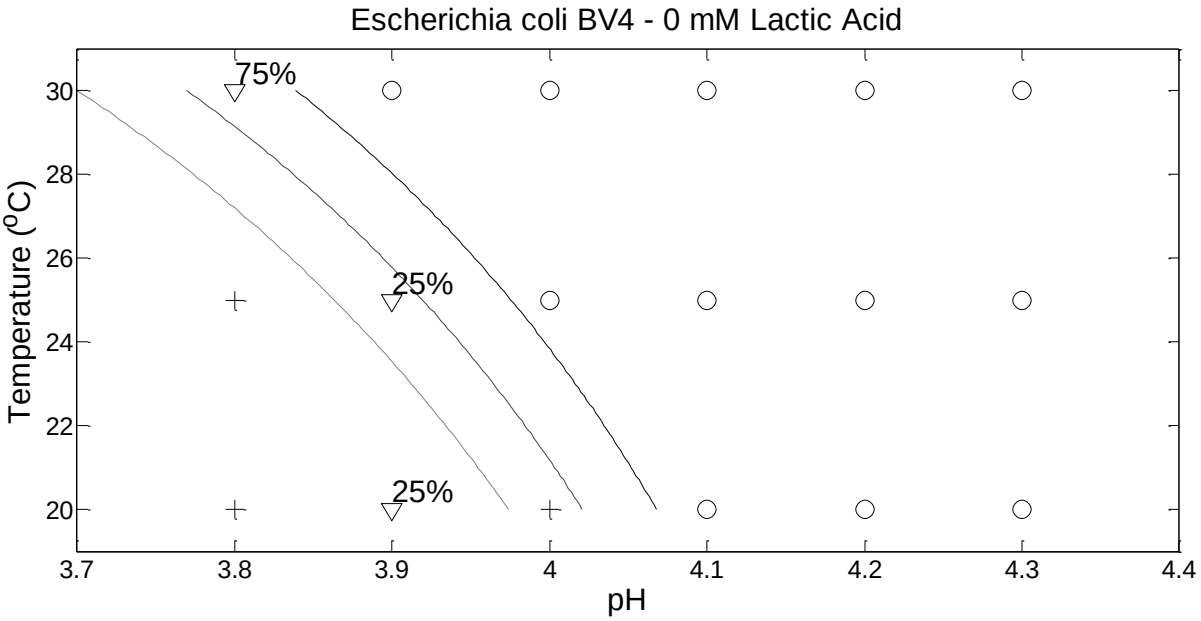
141. *E.coli* BV4 - isolated from dog feces

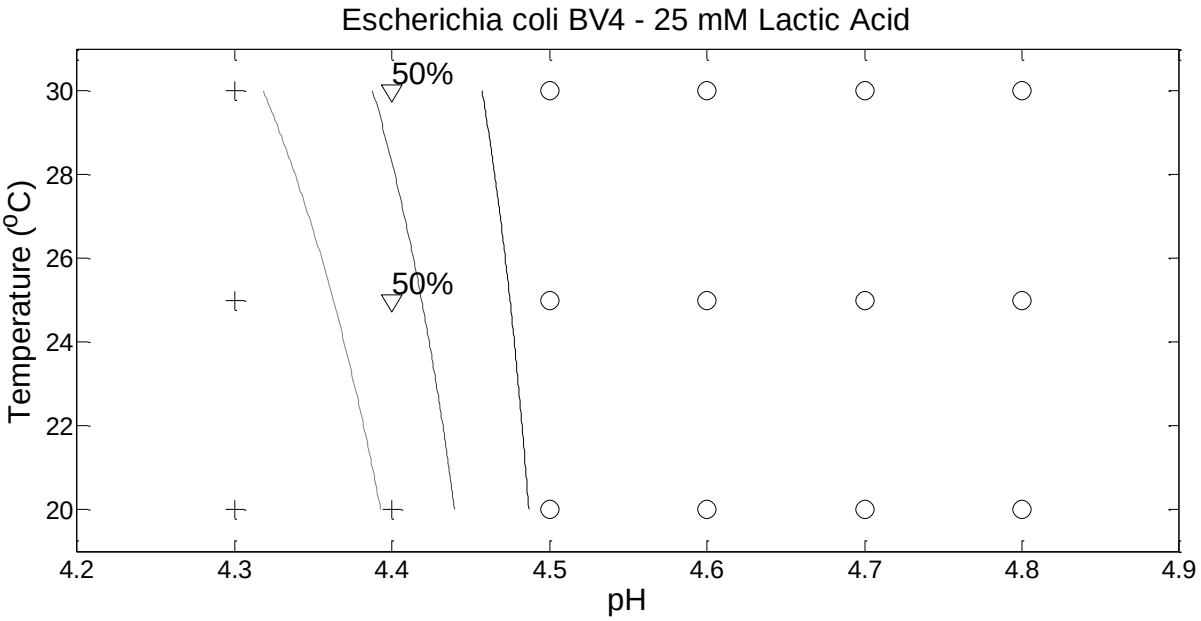
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-324.66	85.27	-3.81	0.00	-544.54	-188.20	0.00	0.00	0.00
pH	76.79	20.35	3.77	0.00	44.33	129.49	2.24E+33	1.78E+19	1.73E+56
LA	-0.78	0.20	-3.99	0.00	-1.30	-0.48	0.46	0.27	0.62
Temp	6.85	2.22	3.09	0.00	3.09	12.14	940.61	22.07	1.87E+05
pH:Temp	-1.51	0.51	-2.93	0.00	-2.73	-0.63	0.22	0.07	0.53

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	168.22	
pH	1	21.82	142	146.39	0.00
LA	1	72.56	141	73.83	0.00
Temp	1	22.11	140	51.72	0.00
pH:Temp	1	13.45	139	38.27	0.00

AIC	48.27
Likelihood Ratio	3.99E-27
Log-Likelihood	-19.13




Escherichia coli BV4 - 0 mM Lactic Acid
75%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

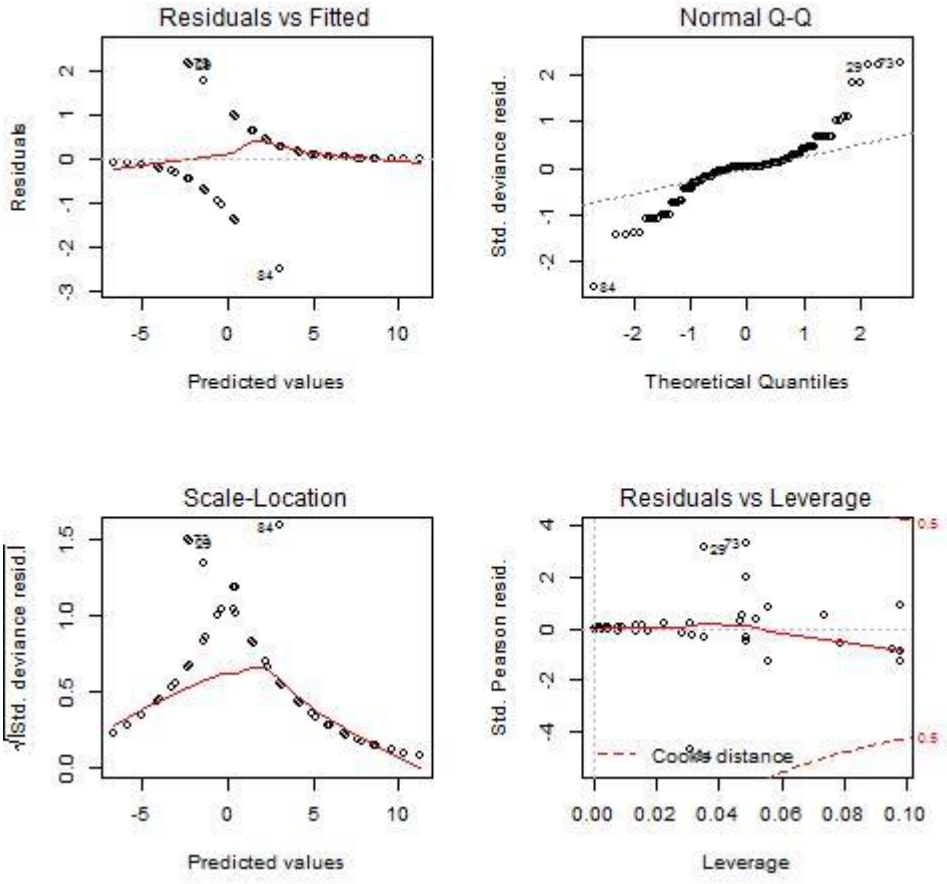

Escherichia coli BV4 - 25 mM Lactic Acid
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

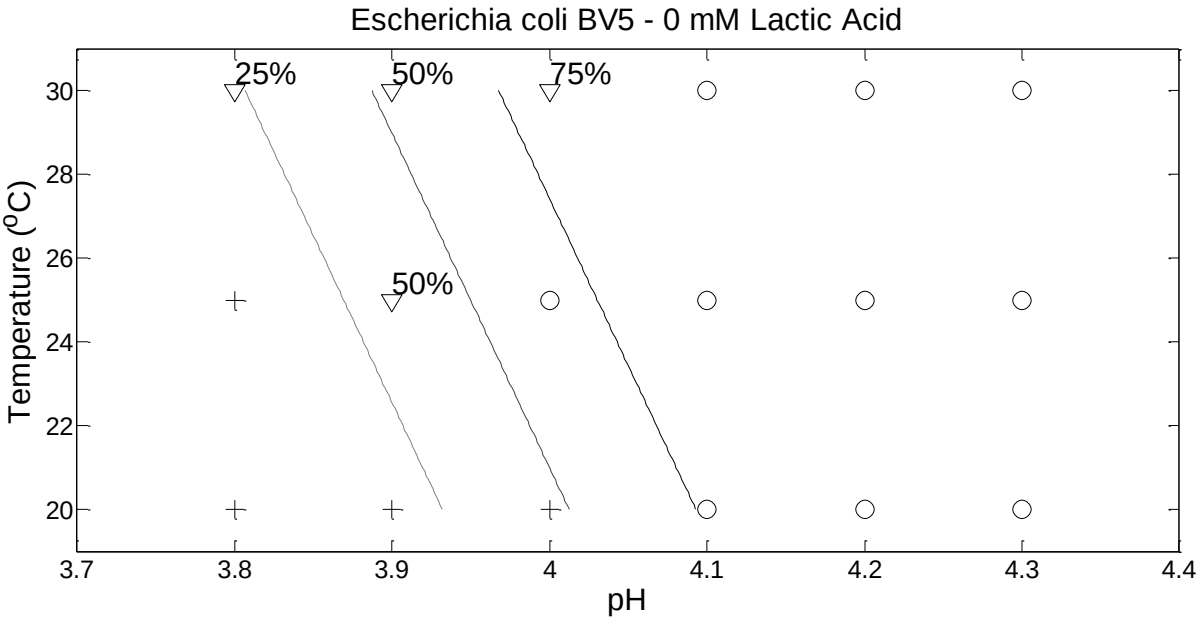
142. *E.coli* BV5 - isolated from rabbit feces

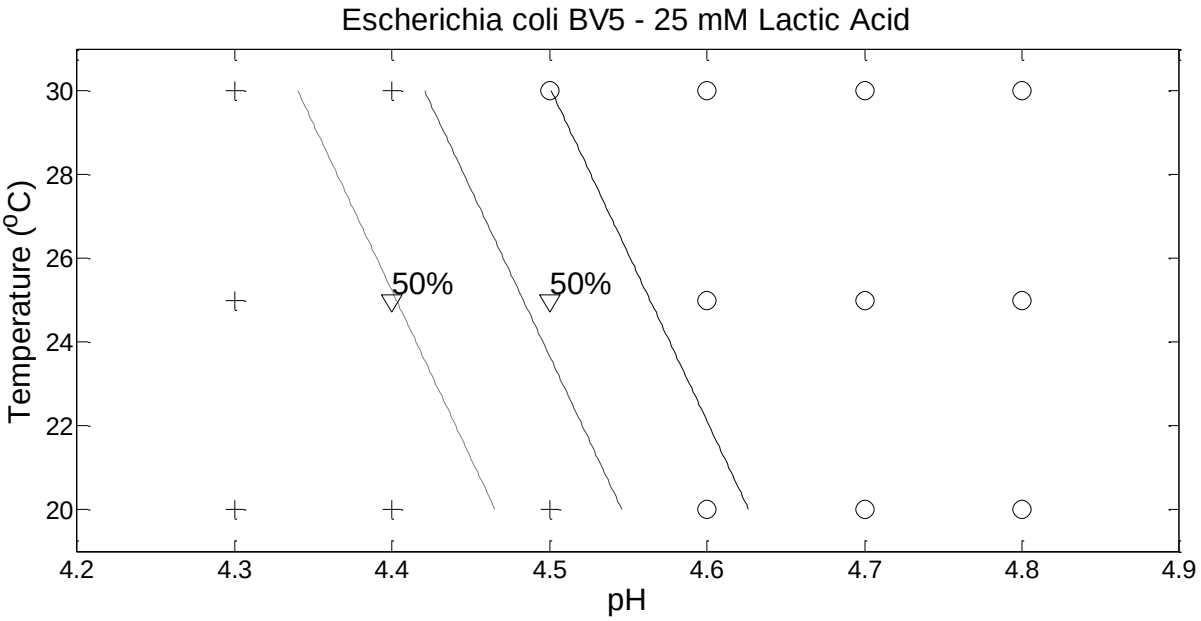
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-116.32	22.36	-5.20	0.00	-168.55	-79.40	0.00	0.00	0.00
pH	27.29	5.23	5.22	0.00	18.65	39.51	7.09E+11	1.26E+08	1.45E+17
LA	-0.58	0.11	-5.08	0.00	-0.85	-0.39	0.56	0.43	0.68
Temp	0.34	0.10	3.27	0.00	0.16	0.57	1.41	1.17	1.77

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	188.37	
pH	1	22.23	142	166.14	0.00
LA	1	93.77	141	72.37	0.00
Temp	1	15.10	140	57.27	0.00

AIC	65.27
Likelihood Ratio	3.13E-28
Log-Likelihood	-28.63




Escherichia coli BV5 - 0 mM Lactic Acid
25%
50%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

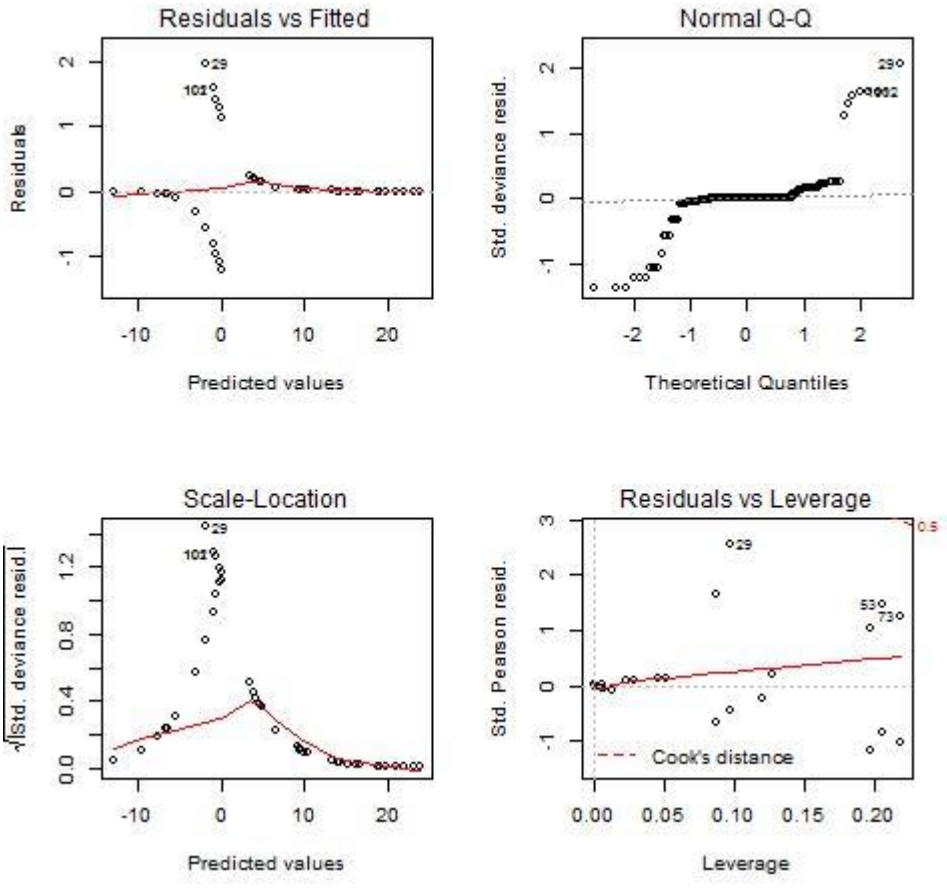

Escherichia coli BV5 - 25 mM Lactic Acid
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

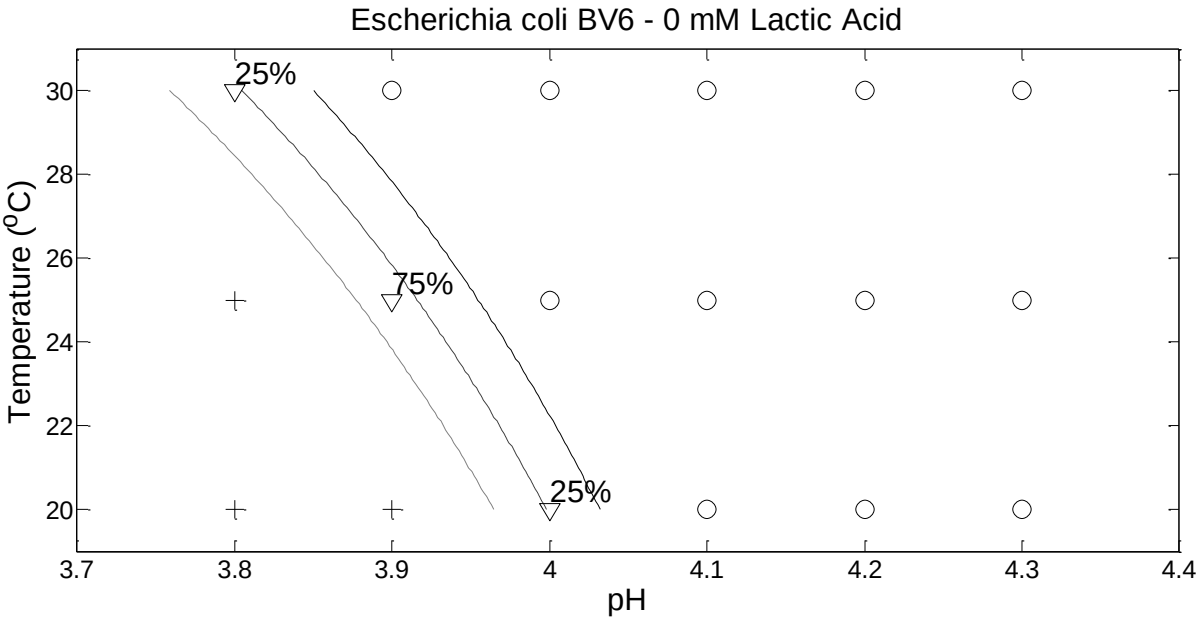
143. *E.coli* BV6 - isolated from rabbit feces

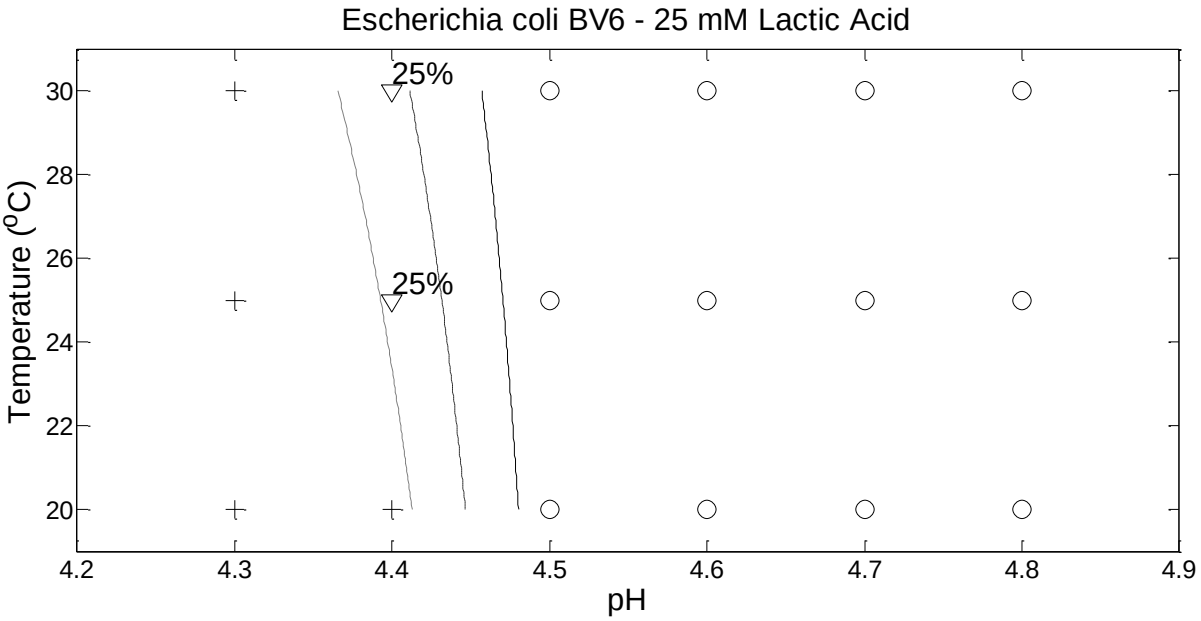
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-415.02	139.29	-2.98	0.00	-864.11	-218.85	0.00	0.00	0.00
pH	99.14	33.38	2.97	0.00	52.24	207.06	1.14E+43	4.89E+22	8.40E+89
LA	-1.17	0.36	-3.22	0.00	-2.27	-0.66	0.31	0.10	0.52
Temp	7.73	3.10	2.49	0.01	3.06	17.35	2.28E+03	21.39	3.42E+07
pH:Temp	-1.70	0.71	-2.39	0.02	-3.89	-0.62	0.18	0.02	0.54

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	172.04	
pH	1	21.69	142	150.35	0.00
LA	1	92.68	141	57.66	0.00
Temp	1	15.93	140	41.74	0.00
pH:Temp	1	11.97	139	29.77	0.00

AIC	39.77
Likelihood Ratio	9.22E-30
Log-Likelihood	-14.88




Escherichia coli BV6 - 0 mM Lactic Acid
25%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

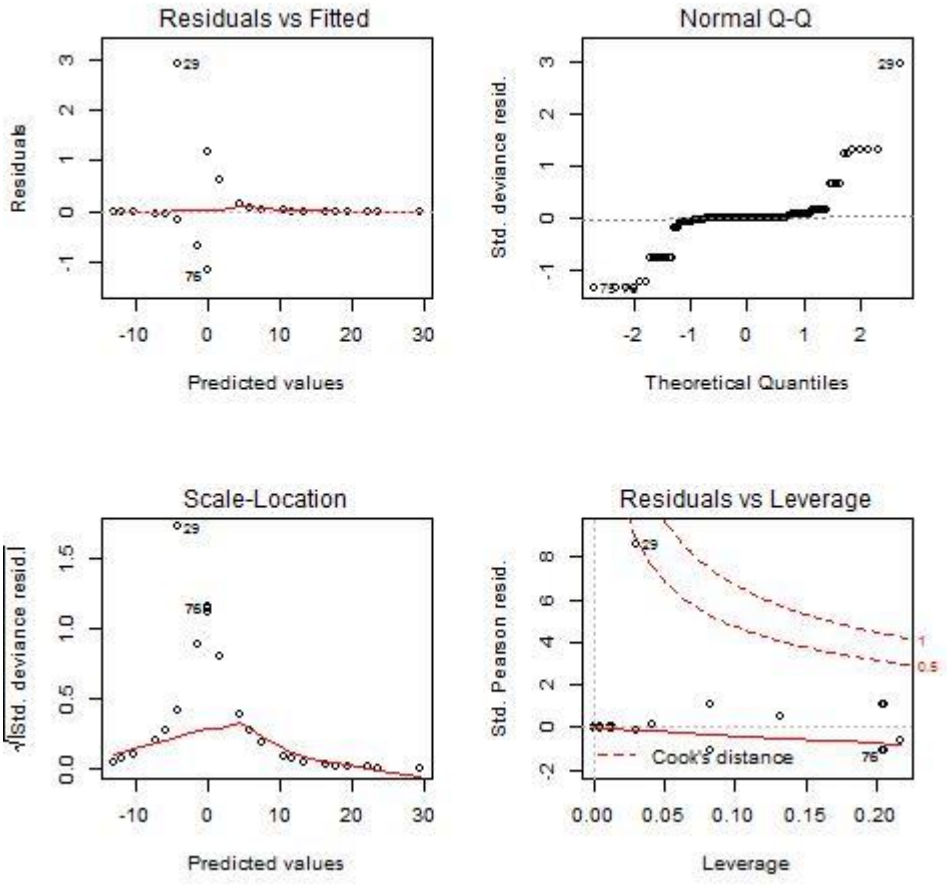

Escherichia coli BV6 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

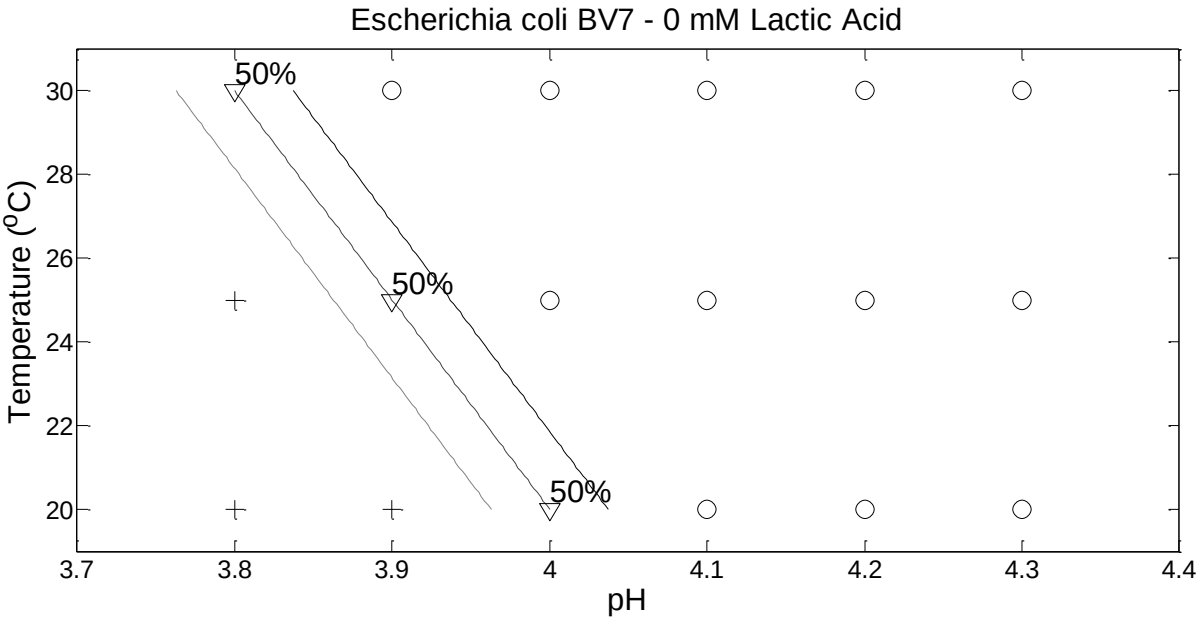
144. *E.coli* BV7 - isolated from human feces

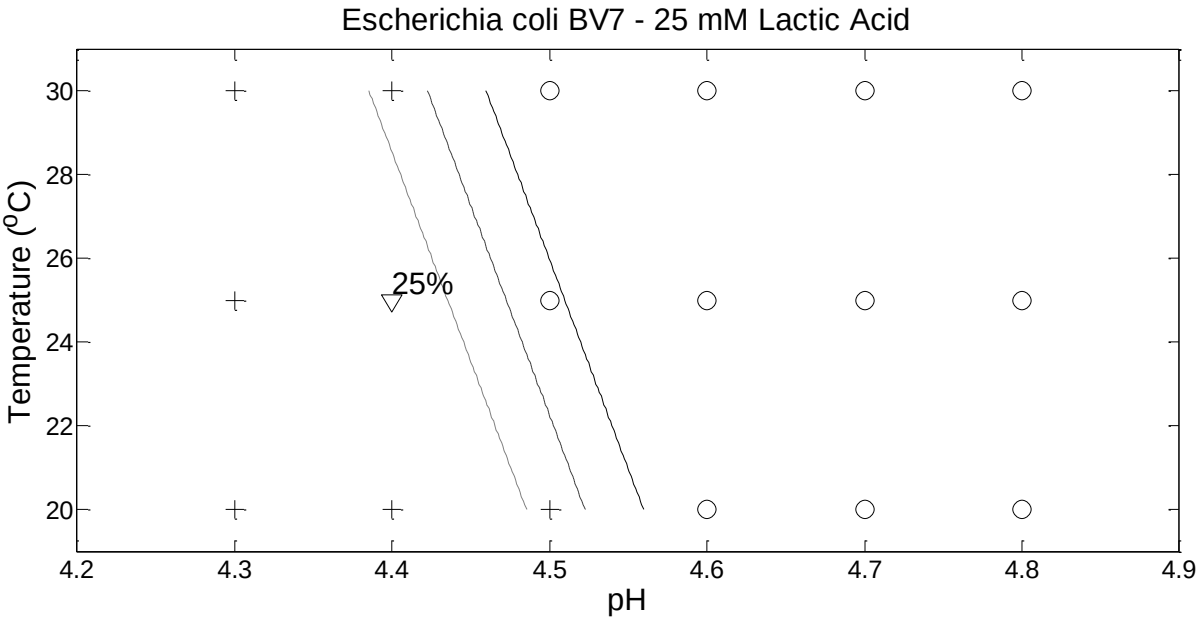
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-260.06	89.04	-2.92	0.00	-520.36	-140.41	0.00	0.00	0.00
pH	59.10	20.23	2.92	0.00	31.90	118.25	4.64E+25	7.15E+13	2.26E+51
LA	-0.76	0.34	-2.24	0.03	-1.63	-0.21	0.47	0.20	0.81
Temp	1.18	0.43	2.78	0.01	0.57	2.39	3.26	1.77	10.90
LA:Temp	-0.02	0.01	-2.00	0.05	-0.05	0.00	0.98	0.95	1.00

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	178.87	
pH	1	13.61	142	165.26	0.00
LA	1	100.83	141	64.43	0.00
Temp	1	28.03	140	36.40	0.00
LA:Temp	1	5.60	139	30.80	0.02

AIC	40.80
Likelihood Ratio	5.26E-31
Log-Likelihood	-15.40




Escherichia coli BV7 - 0 mM Lactic Acid
50%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

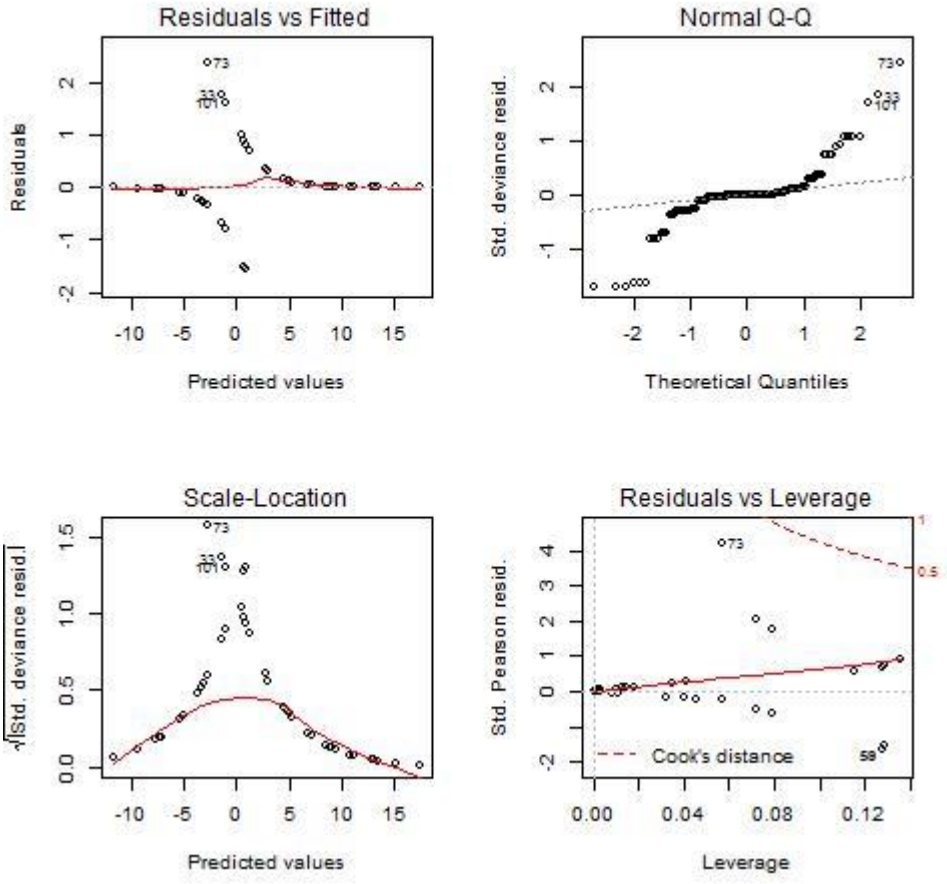

Escherichia coli BV7 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

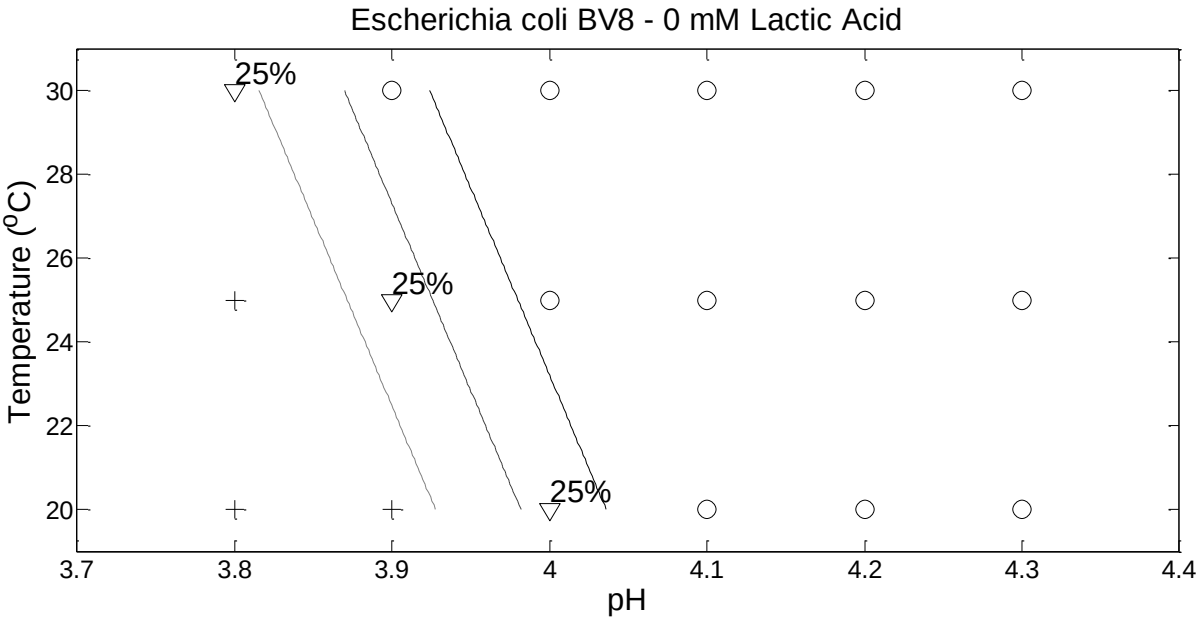
145. *E.coli* BV8 - isolated from dog feces

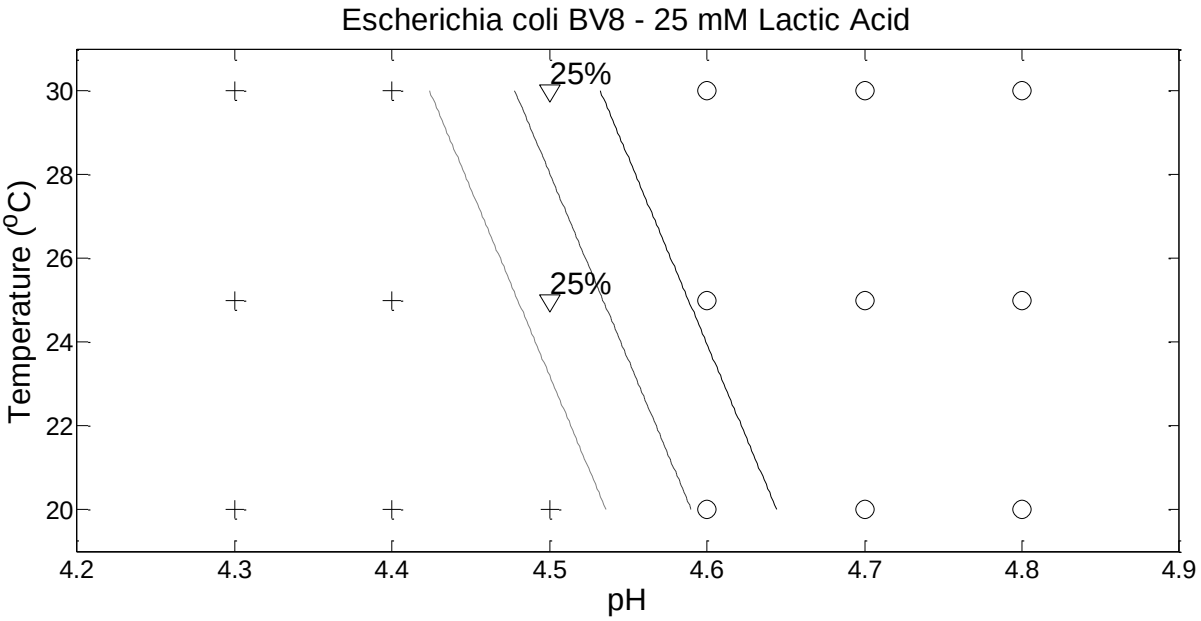
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-170.51	39.40	-4.33	0.00	-267.48	-108.64	0.00	0.00	0.00
pH	40.54	9.35	4.33	0.00	25.86	63.59	4.05E+17	1.70E+11	4.14E+27
LA	-0.99	0.23	-4.29	0.00	-1.55	-0.63	0.37	0.21	0.54
Temp	0.45	0.14	3.19	0.00	0.21	0.78	1.58	1.23	2.18

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	191.52	
pH	1	11.89	142	179.63	0.00
LA	1	123.70	141	55.93	0.00
Temp	1	16.84	140	39.09	0.00

AIC	47.09
Likelihood Ratio	7.87E-33
Log-Likelihood	-19.55




Escherichia coli BV8 - 0 mM Lactic Acid
25%
25%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

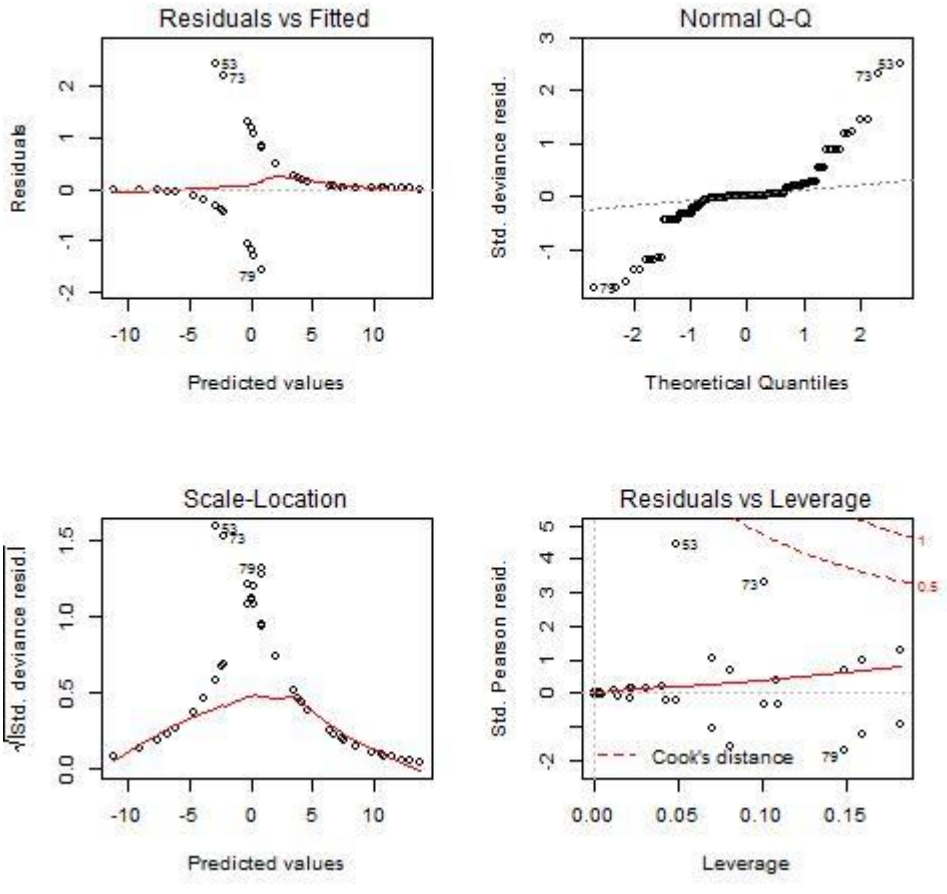

Escherichia coli BV8 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

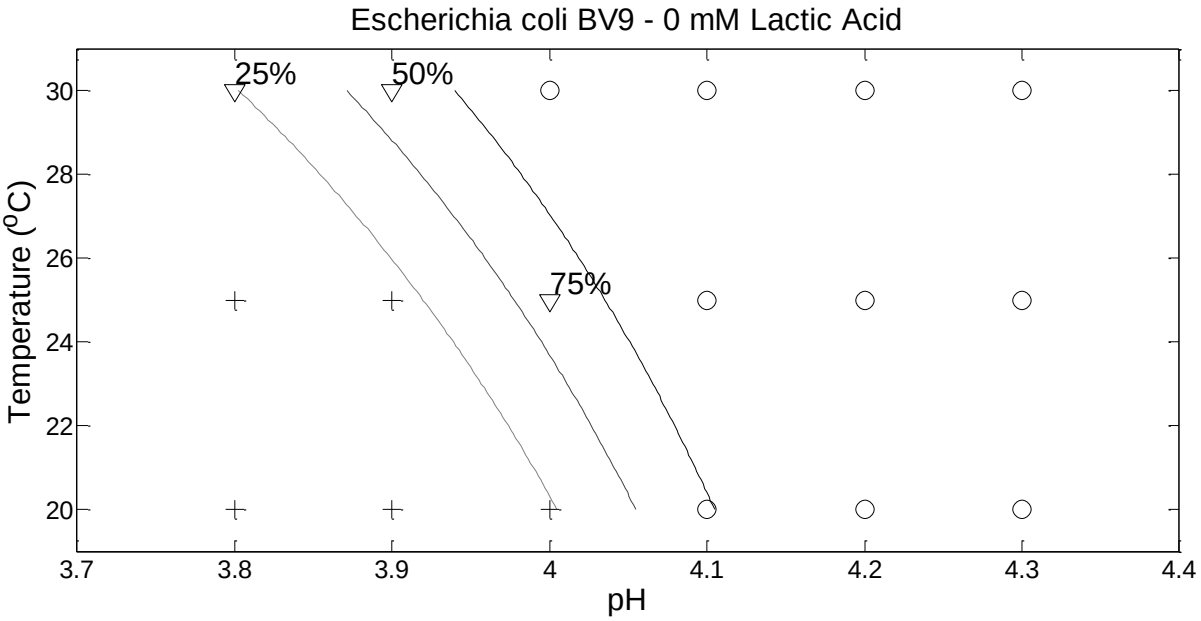
146. *E.coli* BV9 - isolated from bird feces

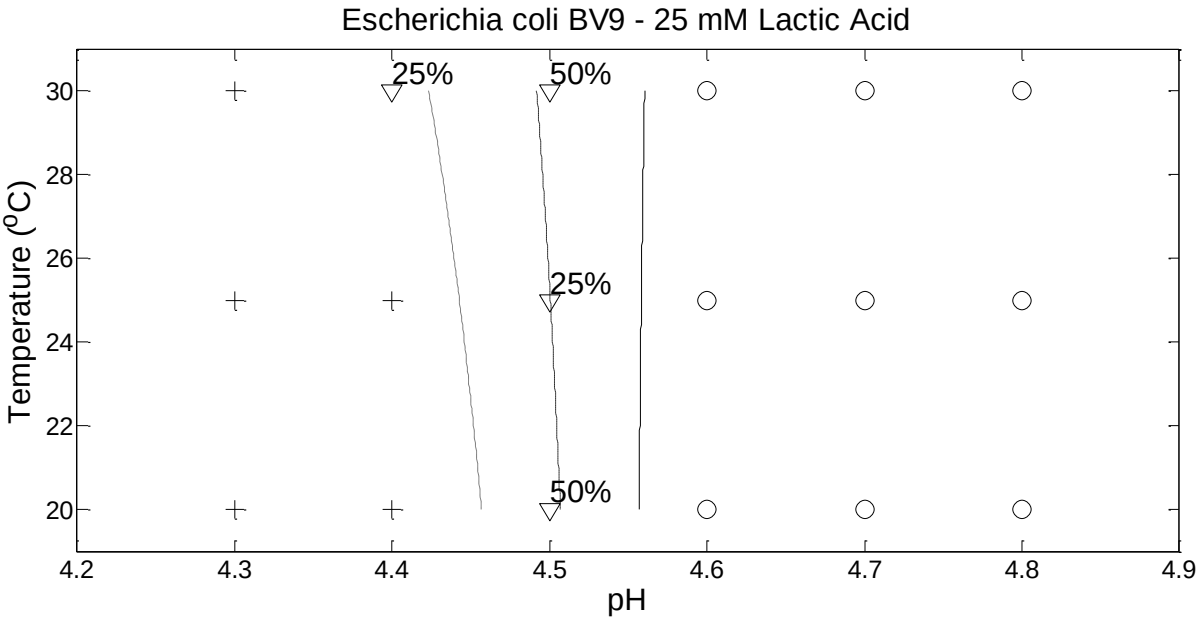
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-287.16	77.97	-3.68	0.00	-483.44	-162.68	0.00	0.00	0.00
pH	67.92	18.38	3.70	0.00	38.53	114.04	3.13E+29	5.43E+16	3.37E+49
LA	-0.80	0.18	-4.37	0.00	-1.25	-0.51	0.45	0.29	0.60
Temp	5.44	2.02	2.69	0.01	2.01	10.29	229.89	7.48	29298.19
pH:Temp	-1.20	0.46	-2.59	0.01	-2.29	-0.40	0.30	0.10	0.67

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	192.46	
pH	1	24.46	142	168.00	0.00
LA	1	104.81	141	63.19	0.00
Temp	1	10.88	140	52.31	0.00
pH:Temp	1	9.79	139	42.51	0.00

AIC	52.51
Likelihood Ratio	2.09E-31
Log-Likelihood	-21.26




Escherichia coli BV9 - 0 mM Lactic Acid
25%
50%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

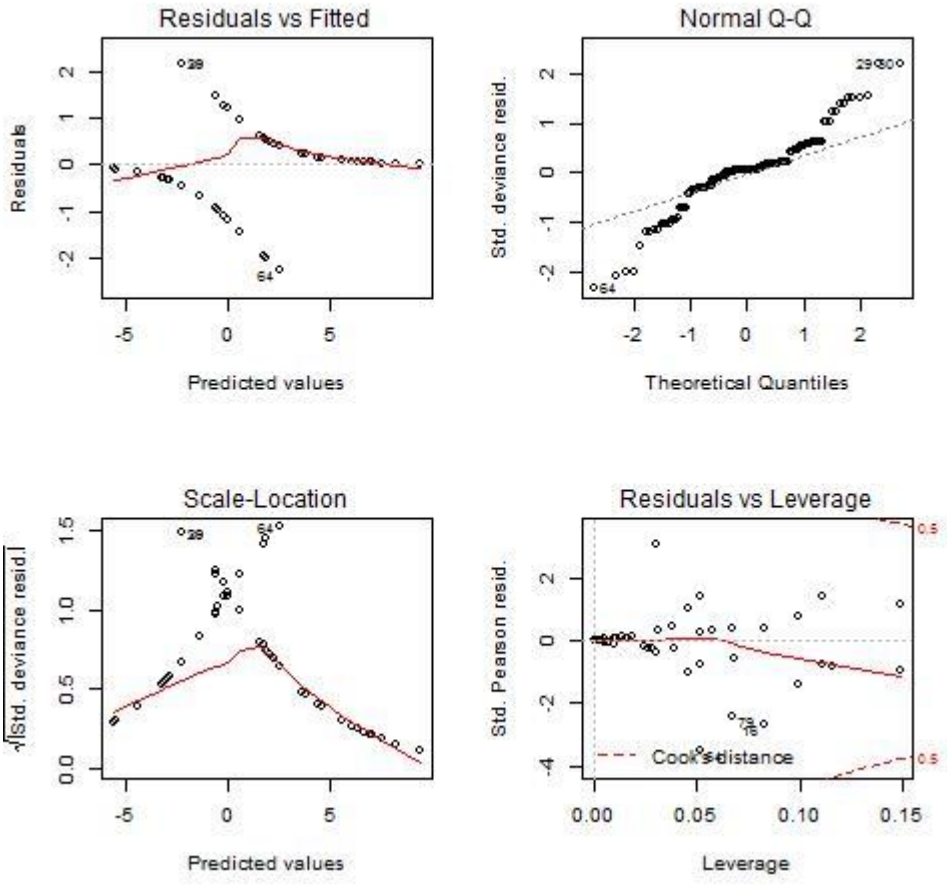

Escherichia coli BV9 - 25 mM Lactic Acid
25%
50%
25%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

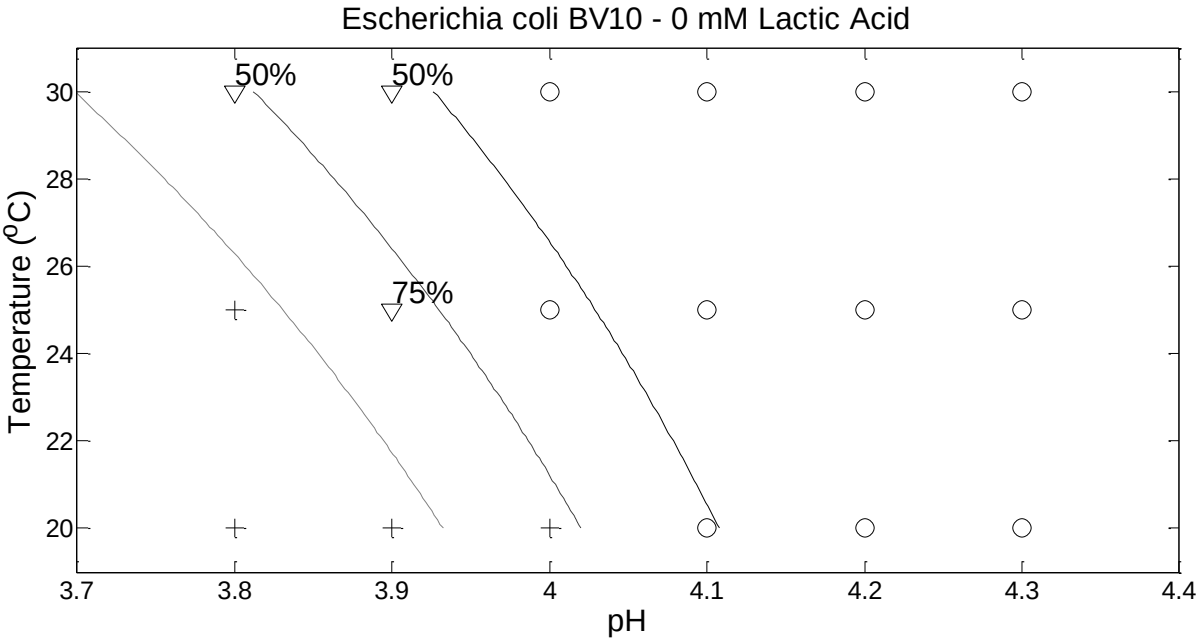
147. *E.coli* BV10 - isolated from horse feces

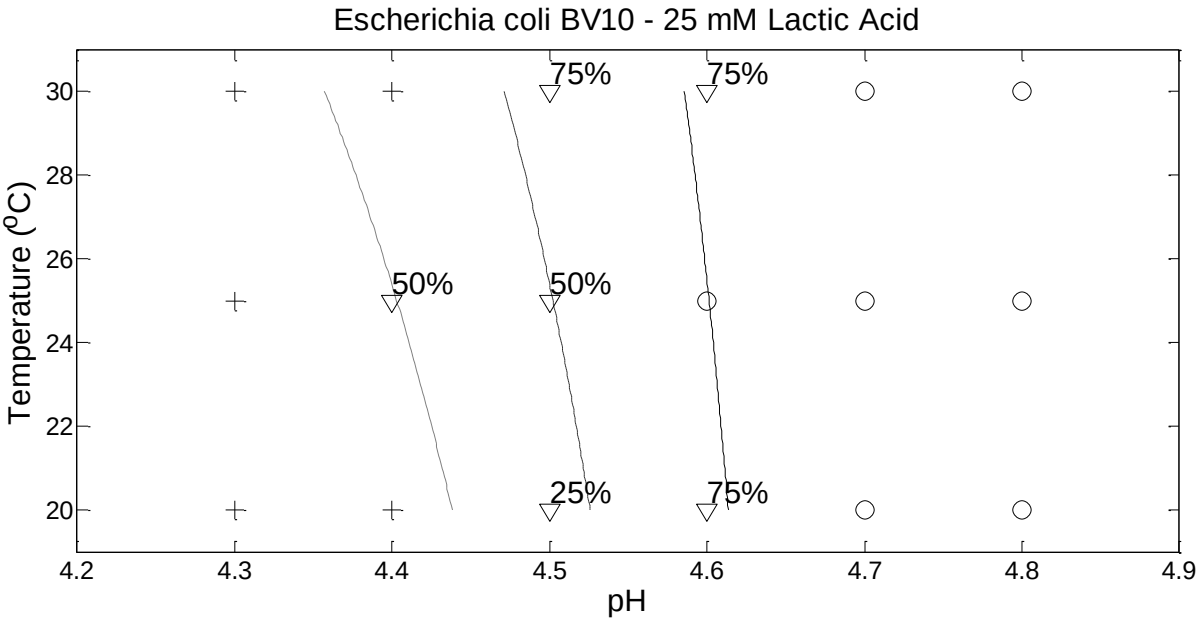
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-155.70	38.32	-4.06	0.00	-240.84	-88.67	0.00	0.00	0.00
pH	36.74	9.05	4.06	0.00	20.92	56.86	9.05E+15	1.22E+09	4.92E+24
LA	-0.51	0.09	-5.34	0.00	-0.73	-0.35	0.60	0.48	0.71
Temp	2.75	1.18	2.33	0.02	0.56	5.24	15.58	1.75	189.26
pH:Temp	-0.58	0.27	-2.13	0.03	-1.16	-0.07	0.56	0.31	0.93

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	187.20	
pH	1	13.16	142	174.04	0.00
LA	1	88.99	141	85.04	0.00
Temp	1	12.25	140	72.79	0.00
pH:Temp	1	5.03	139	67.76	0.02

AIC	77.76
Likelihood Ratio	7.05E-25
Log-Likelihood	-33.88




Escherichia coli BV10 - 0 mM Lactic Acid
50%
50%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

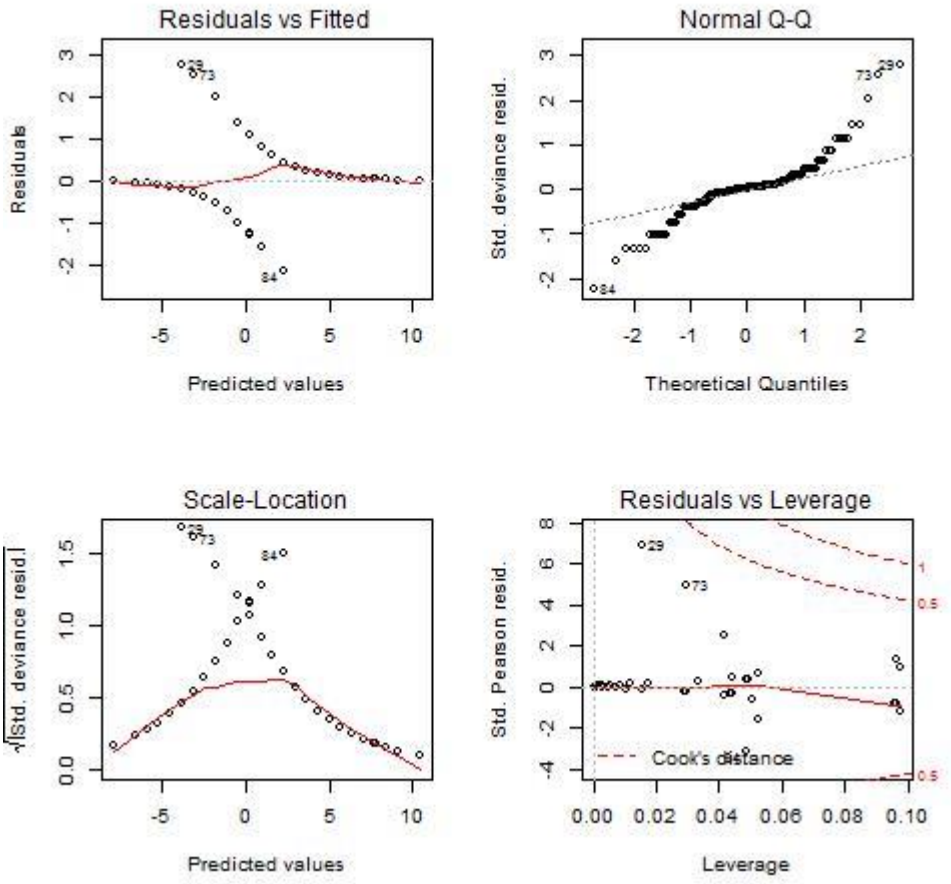

Escherichia coli BV10 - 25 mM Lactic Acid
75%
75%
50%
50%
25%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

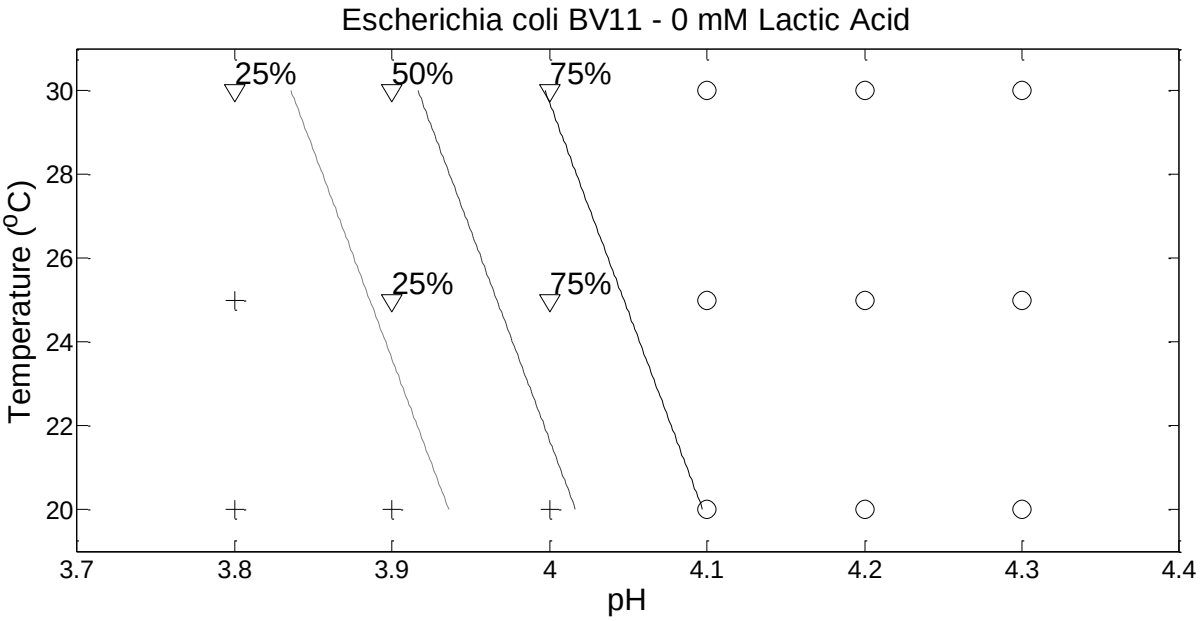
148. *E.coli* BV11 - isolated from horse feces

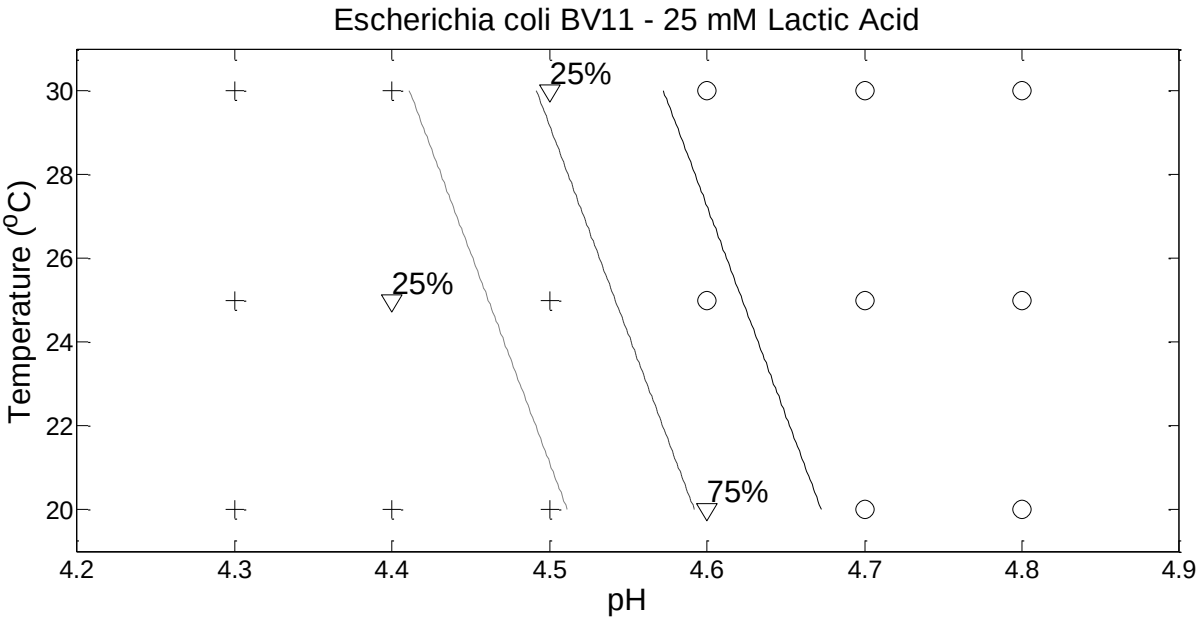
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-114.88	21.90	-5.25	0.00	-166.42	-78.84	0.00	0.00	0.00
pH	27.24	5.17	5.27	0.00	18.74	39.43	6.79E+11	1.37E+08	1.33E+17
LA	-0.63	0.12	-5.14	0.00	-0.91	-0.43	0.53	0.40	0.65
Temp	0.27	0.10	2.82	0.00	0.10	0.48	1.31	1.10	1.62

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	196.25	
pH	1	17.22	142	179.03	0.00
LA	1	111.22	141	67.81	0.00
Temp	1	10.05	140	57.76	0.00

AIC	65.76
Likelihood Ratio	7.99E-30
Log-Likelihood	-28.88




Escherichia coli BV11 - 0 mM Lactic Acid
25%
50%
75%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

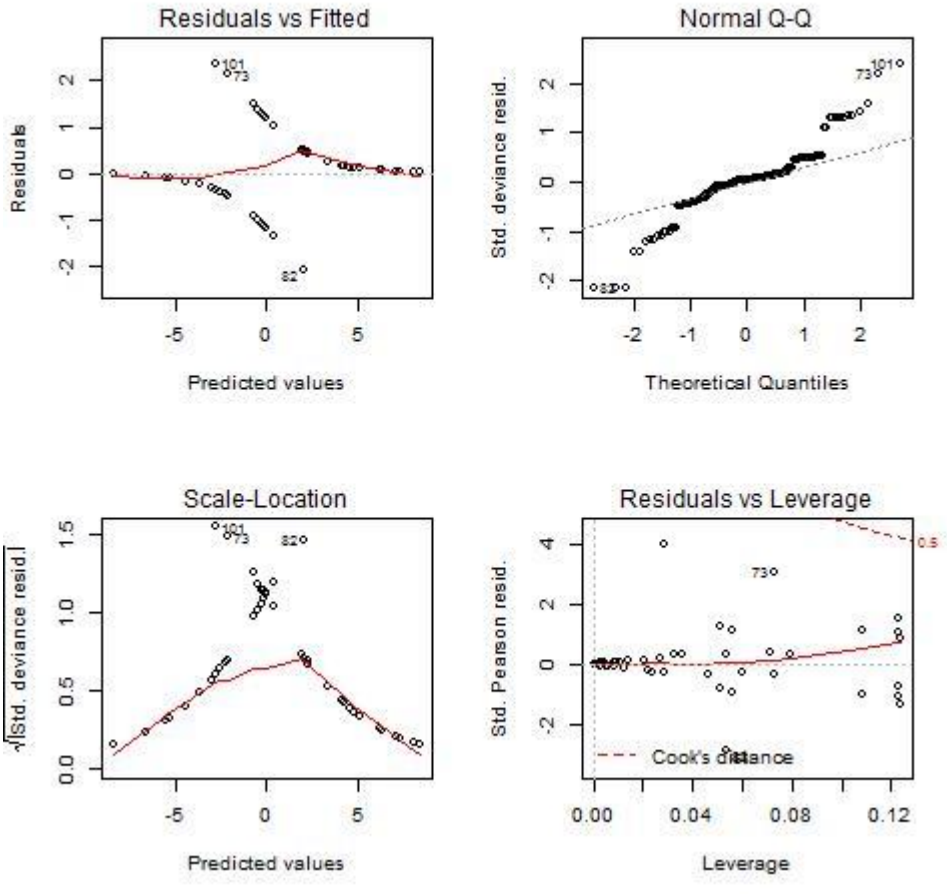

Escherichia coli BV11 - 25 mM Lactic Acid
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

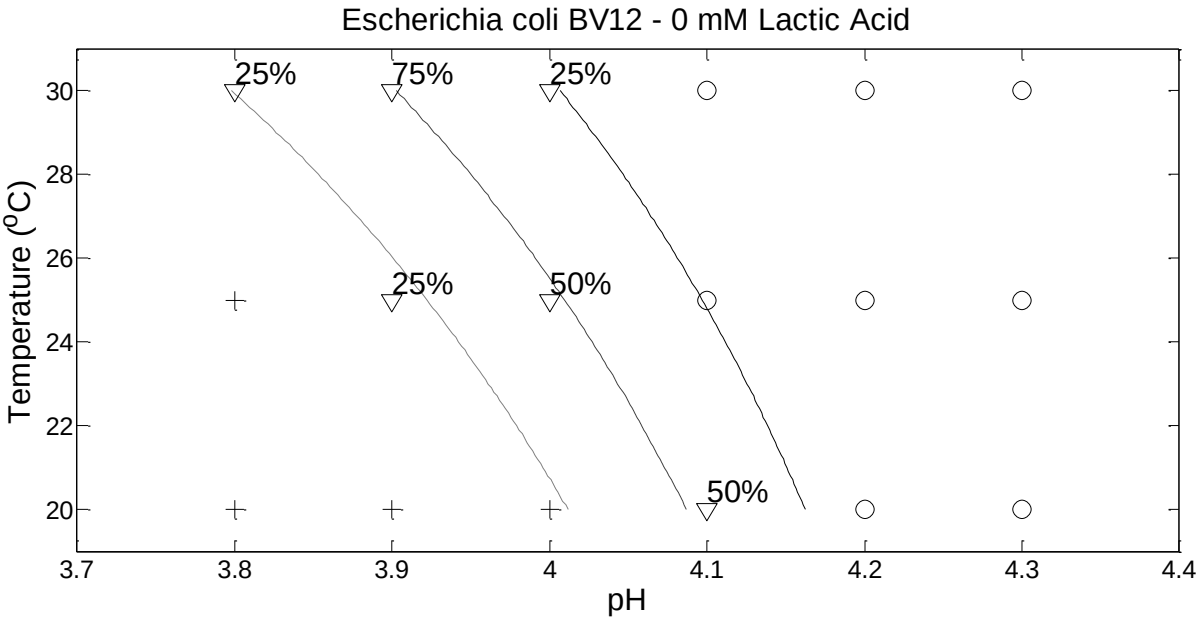
149. *E.coli* BV12 - isolated from dog feces

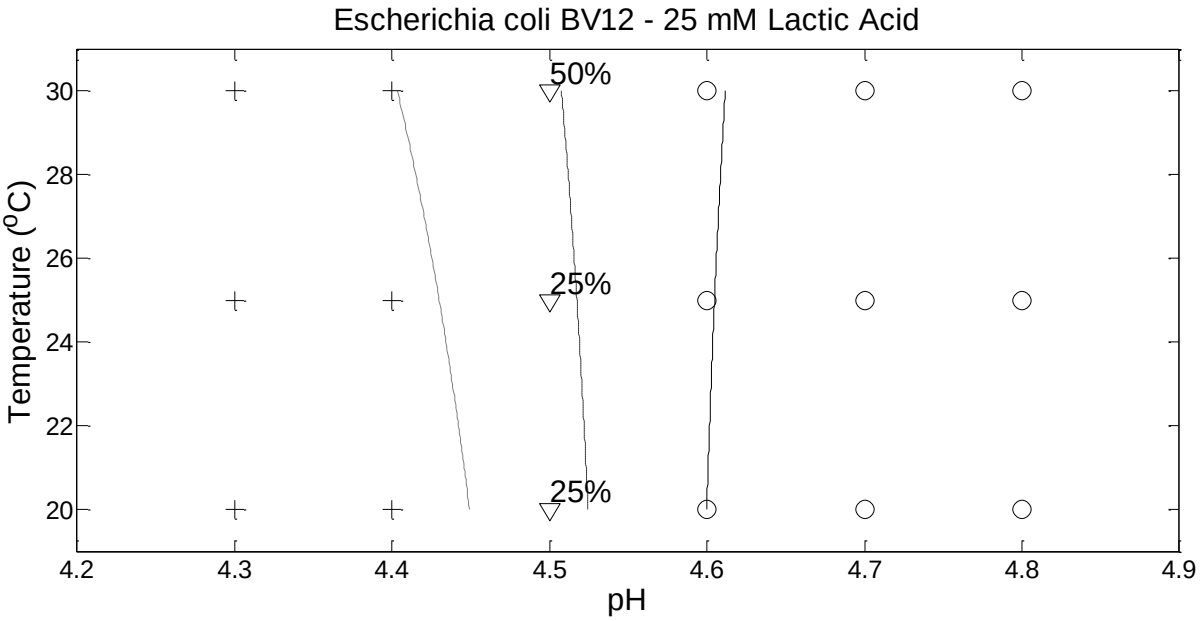
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-193.01	48.48	-3.98	0.00	-303.58	-110.05	0.00	0.00	0.00
pH	45.32	11.36	3.99	0.00	25.88	71.26	4.82E+19	1.74E+11	8.86E+30
LA	-0.51	0.10	-5.26	0.00	-0.74	-0.35	0.60	0.48	0.71
Temp	3.69	1.44	2.56	0.01	1.08	6.83	40.04	2.94	922.37
pH:Temp	-0.81	0.33	-2.42	0.02	-1.53	-0.20	0.45	0.22	0.82

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	196.84	
pH	1	26.67	142	170.17	0.00
LA	1	91.50	141	78.66	0.00
Temp	1	8.41	140	70.25	0.00
pH:Temp	1	7.08	139	63.17	0.01

AIC	73.17
Likelihood Ratio	6.39E-28
Log-Likelihood	-31.58




Escherichia coli BV12 - 0 mM Lactic Acid
25%
75%
25%
25%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

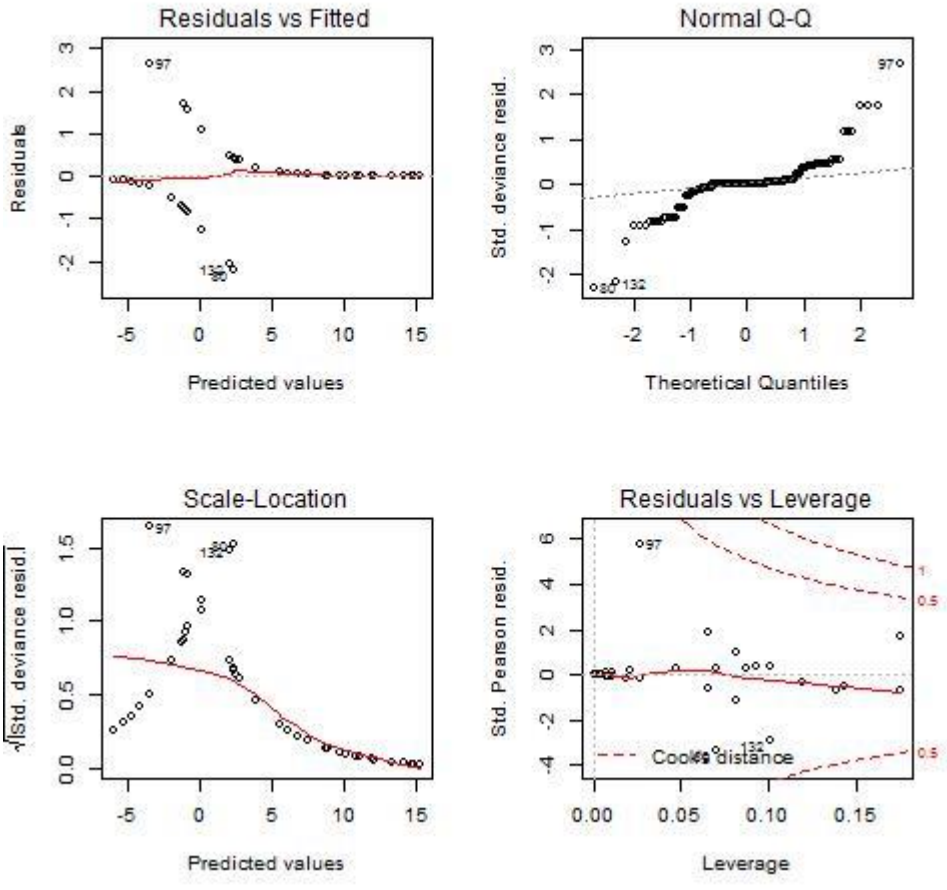

Escherichia coli BV12 - 25 mM Lactic Acid
50%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

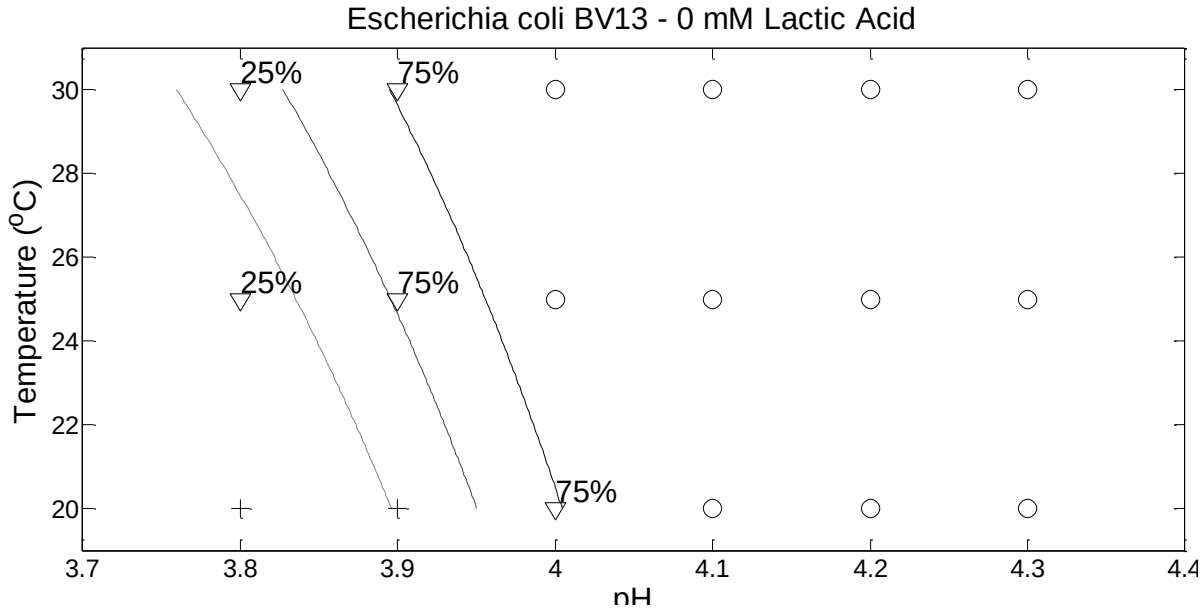
150. *E.coli* BV13 - isolated from human feces

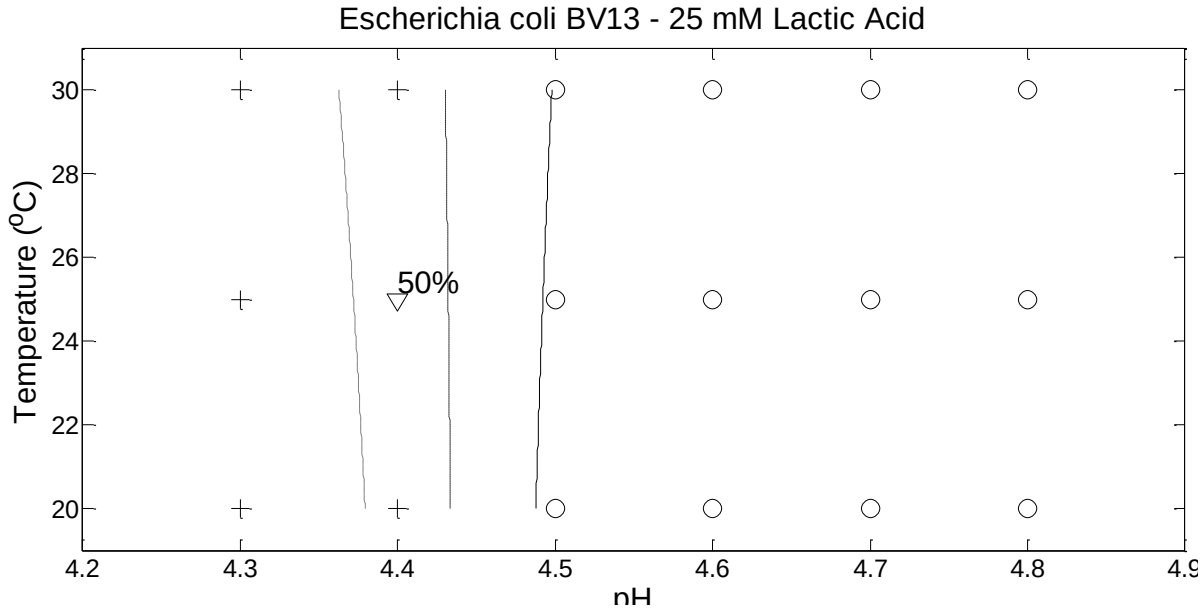
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-231.90	63.73	-3.64	0.00	-387.05	-127.40	0.00	0.00	0.00
pH	56.68	15.46	3.67	0.00	31.35	94.30	4.13E+24	4.13E+13	8.95E+40
LA	-0.78	0.17	-4.58	0.00	-1.19	-0.50	0.46	0.30	0.60
Temp	3.59	1.71	2.10	0.04	0.55	7.50	36.08	1.73	1806.49
pH:Temp	-0.81	0.40	-1.99	0.05	-1.73	-0.08	0.45	0.18	0.92

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	168.22	
pH	1	18.18	142	150.04	0.00
LA	1	98.10	141	51.94	0.00
Temp	1	4.93	140	47.01	0.03
pH:Temp	1	4.86	139	42.15	0.03

AIC	52.15
Likelihood Ratio	2.7E-26
Log-Likelihood	-21.08




Escherichia coli BV13 - 0 mM Lactic Acid
25%
75%
25%
75%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

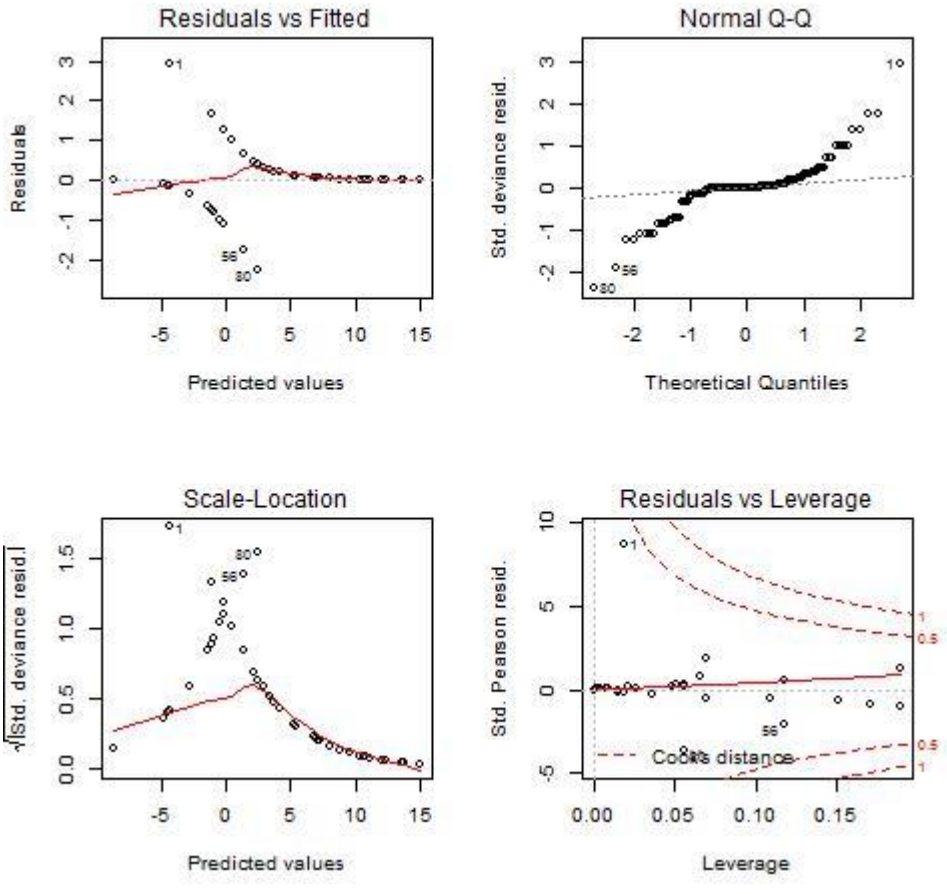

Escherichia coli BV13 - 25 mM Lactic Acid
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

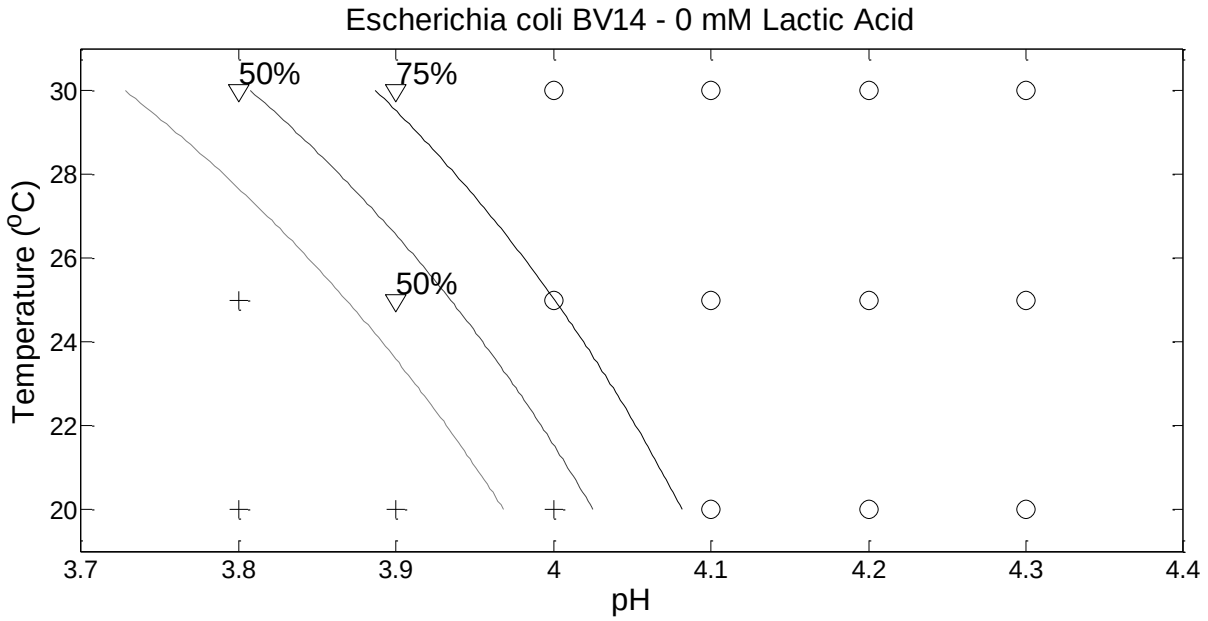
151. *E.coli* BV14 - isolated from horse feces

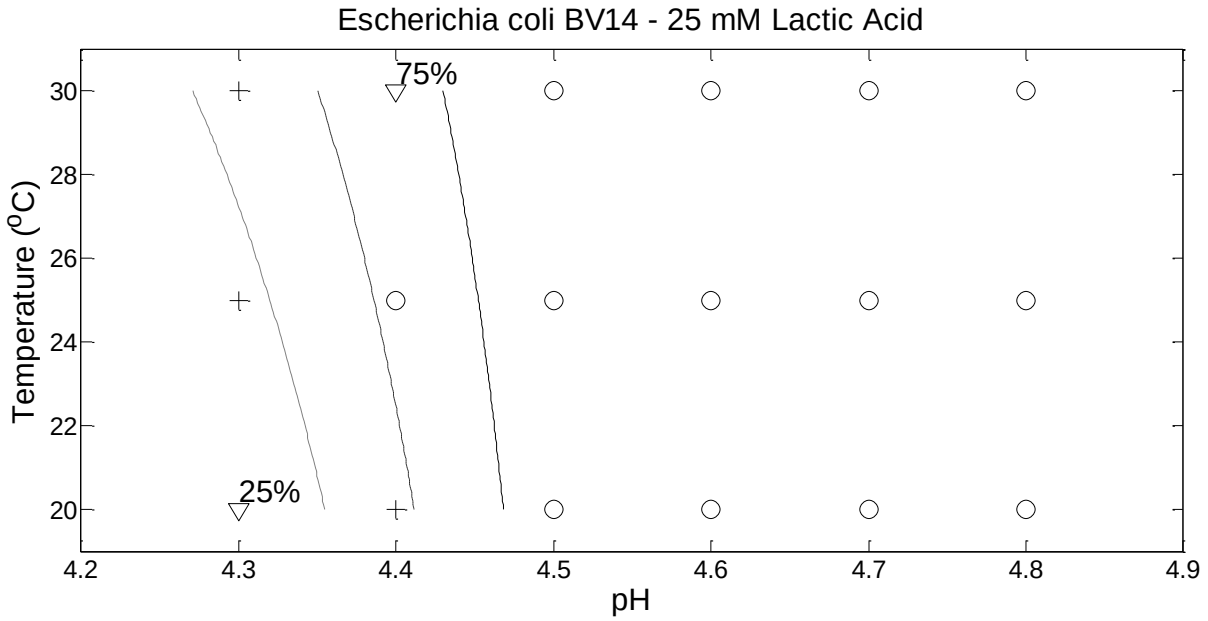
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-257.89	69.73	-3.70	0.00	-420.81	-141.68	0.00	0.00	0.00
pH	61.09	16.63	3.67	0.00	33.37	99.97	3.40E+26	3.12E+14	2.62E+43
LA	-0.60	0.14	-4.27	0.00	-0.94	-0.37	0.55	0.39	0.69
Temp	5.09	1.93	2.64	0.01	1.66	9.35	1.63E+02	5.24	1.15E+04
pH:Temp	-1.12	0.45	-2.47	0.01	-2.10	-0.31	0.33	0.12	0.74

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	164.11	
pH	1	31.68	142	132.43	0.00
LA	1	60.17	141	72.26	0.00
Temp	1	18.41	140	53.85	0.00
pH:Temp	1	7.68	139	46.17	0.01

AIC	56.17
Likelihood Ratio	1.47E-24
Log-Likelihood	-23.08




Escherichia coli BV14 - 0 mM Lactic Acid
50%
75%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

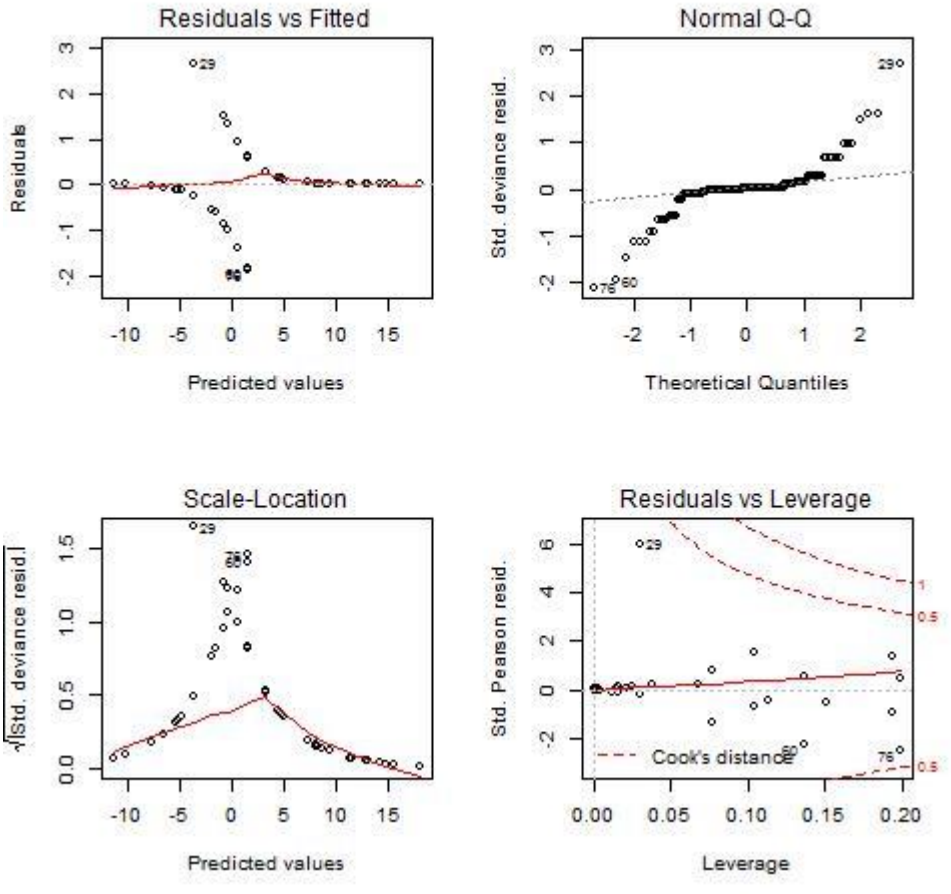

Escherichia coli BV14 - 25 mM Lactic Acid
75%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

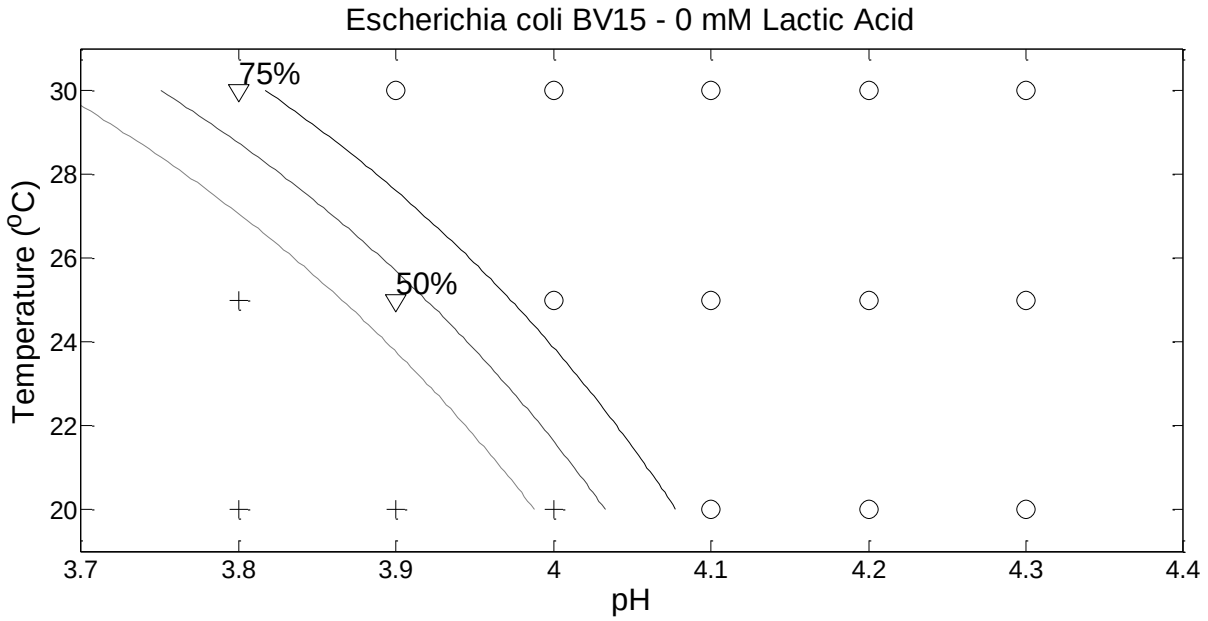
152. *E.coli* BV15 - isolated from bird feces

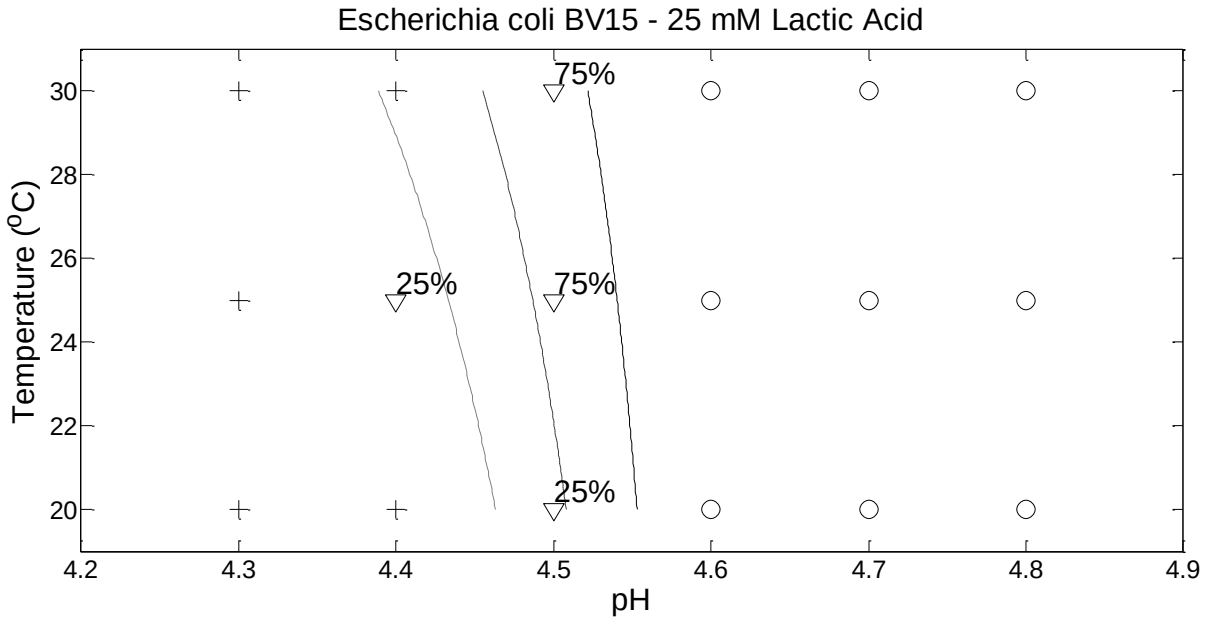
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-344.34	88.63	-3.89	0.00	-566.72	-203.12	0.00	0.00	0.00
pH	80.77	20.91	3.86	0.00	47.50	133.47	1.19E+35	4.27E+20	9.23E+57
LA	-0.93	0.24	-3.86	0.00	-1.58	-0.57	0.39	0.21	0.57
Temp	7.35	2.22	3.31	0.00	3.62	12.63	1.56E+03	37.15	3.07E+05
pH:Temp	-1.59	0.50	-3.17	0.00	-2.78	-0.74	0.20	0.06	0.48

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	181.90	
pH	1	12.83	142	169.07	0.00
LA	1	91.00	141	78.06	0.00
Temp	1	24.99	140	53.08	0.00
pH:Temp	1	16.93	139	36.14	0.00

AIC	46.14
Likelihood Ratio	1.65E-30
Log-Likelihood	-18.07




Escherichia coli BV15 - 0 mM Lactic Acid
75%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

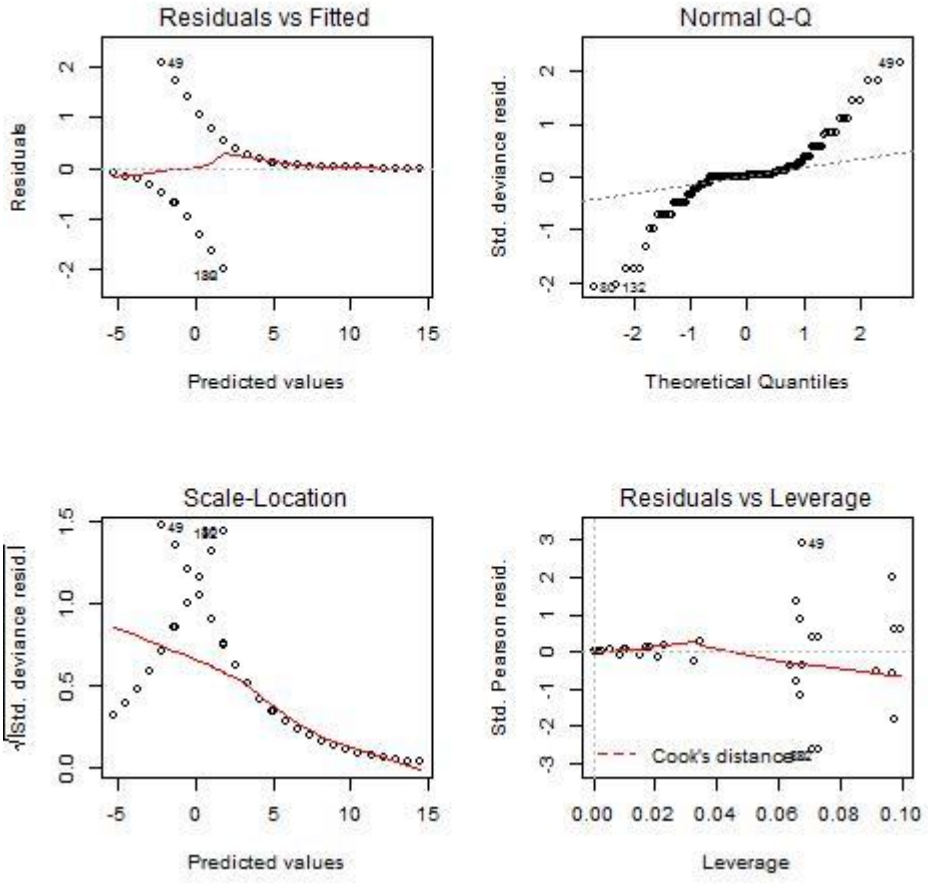

Escherichia coli BV15 - 25 mM Lactic Acid
75%
25%
75%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

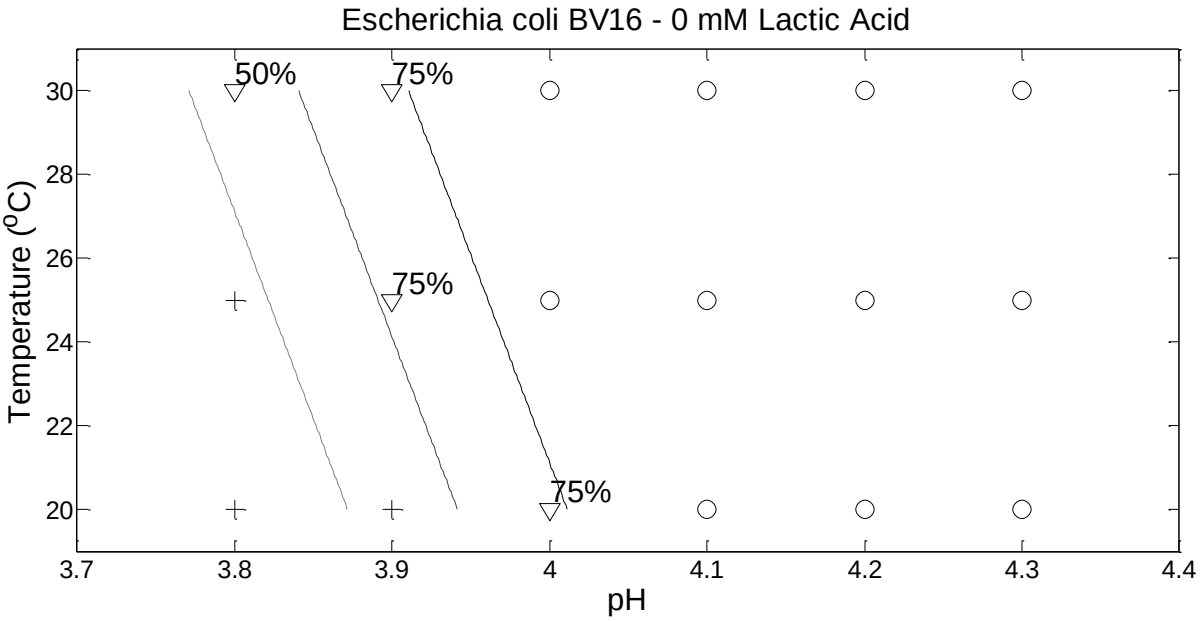
153. *E.coli* BV16 isolated from bird feces

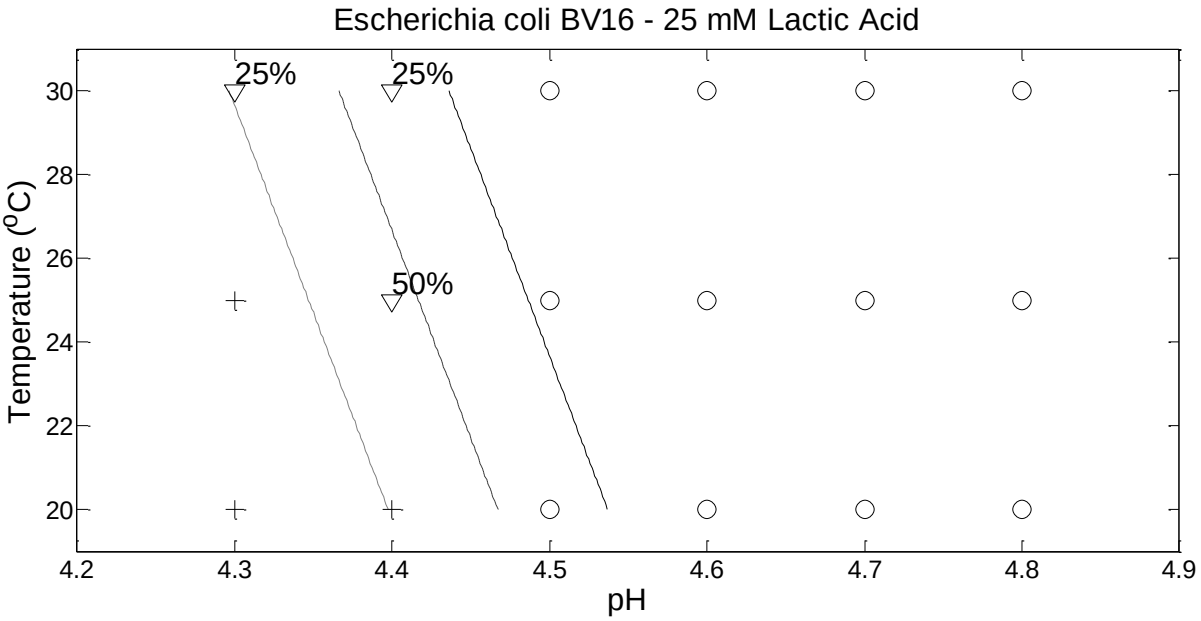
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-130.49	27.22	-4.79	0.00	-194.06	-85.73	0.00	0.00	0.00
pH	31.50	6.56	4.80	0.00	20.70	46.80	4.77E+13	9.80E+08	2.12E+20
LA	-0.66	0.14	-4.69	0.00	-0.99	-0.43	0.52	0.37	0.65
Temp	0.32	0.11	2.87	0.00	0.12	0.57	1.37	1.13	1.77

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	164.11	
pH	1	19.49	142	144.62	0.00
LA	1	84.45	141	60.17	0.00
Temp	1	11.35	140	48.82	0.00

AIC	56.82
Likelihood Ratio	7.95E-25
Log-Likelihood	-24.41




Escherichia coli BV16 - 0 mM Lactic Acid
50%
75%
75%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

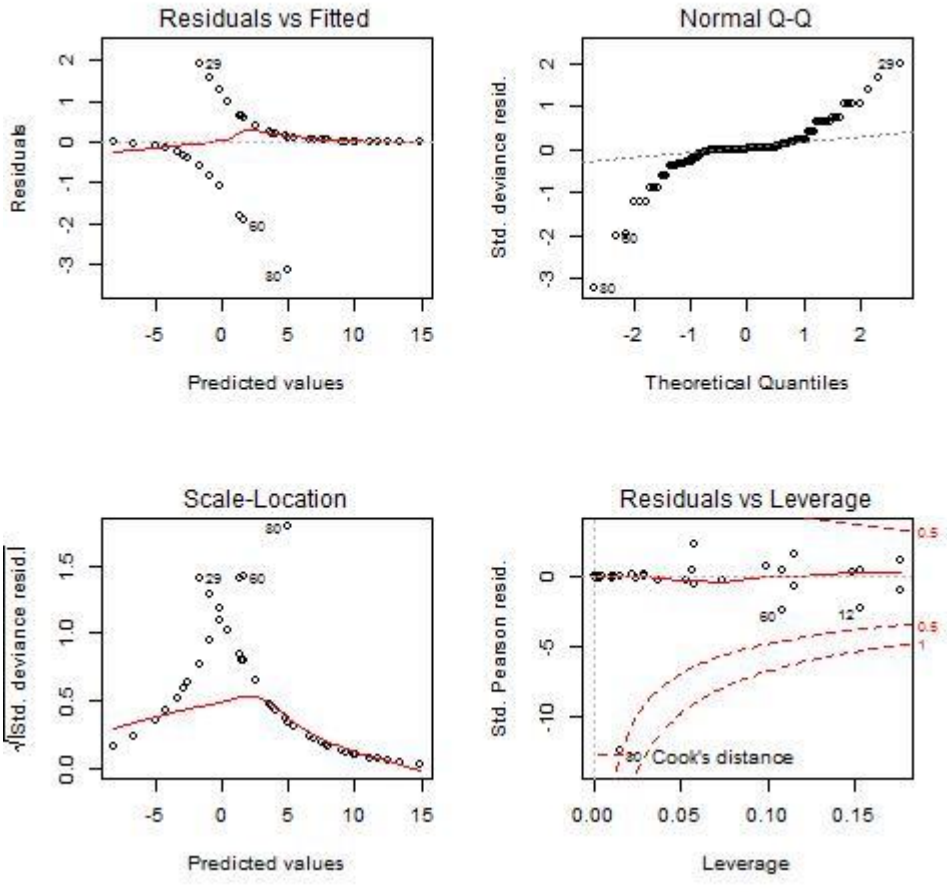

Escherichia coli BV16 - 25 mM Lactic Acid
25%
25%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

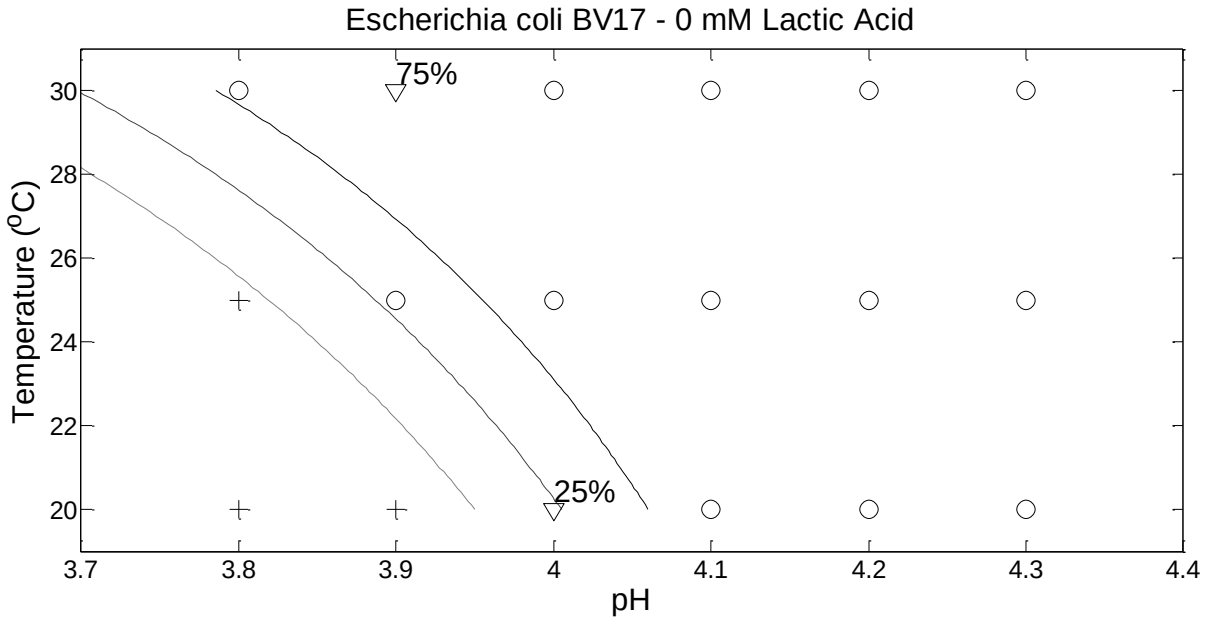
154. *E.coli* BV17 - isolated from bird feces

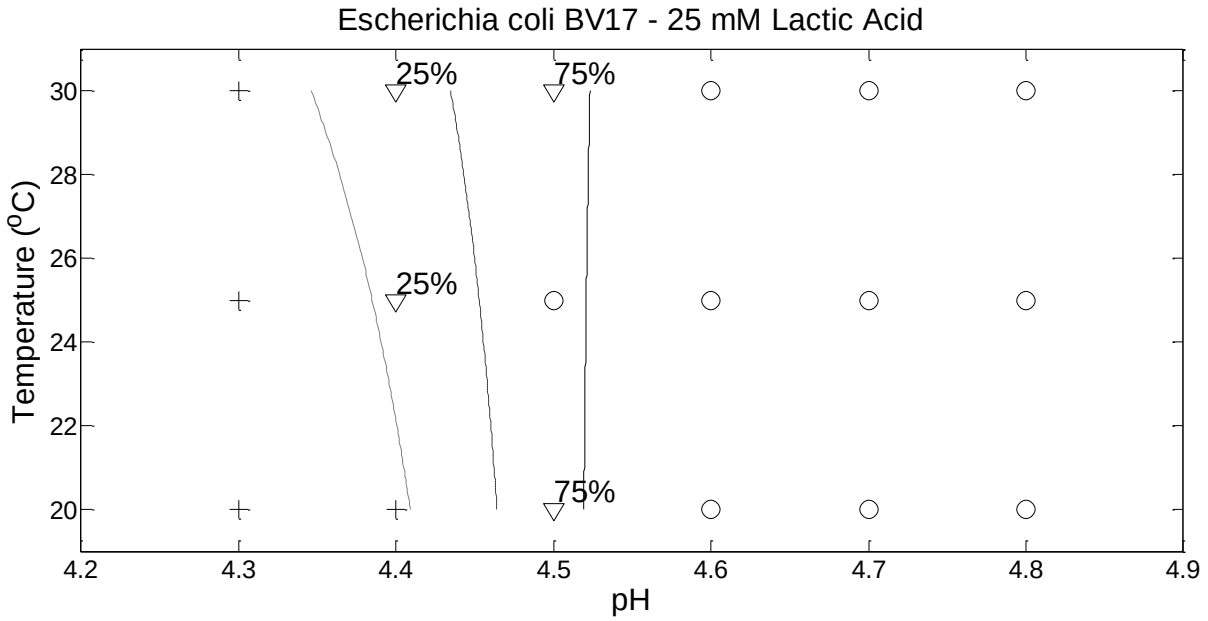
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-295.31	71.60	-4.12	0.00	-464.15	-177.15	0.00	0.00	0.00
pH	69.92	16.93	4.13	0.00	41.96	109.80	2.33E+30	1.66E+18	4.84E+47
LA	-0.73	0.16	-4.48	0.00	-1.13	-0.47	0.48	0.32	0.62
Temp	6.79	2.12	3.21	0.00	3.26	11.85	885.30	25.96	1.40E+05
pH:Temp	-1.50	0.49	-3.10	0.00	-2.66	-0.69	0.22	0.07	0.50

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	170.16	
pH	1	11.82	142	158.34	0.00
LA	1	82.47	141	75.87	0.00
Temp	1	17.27	140	58.60	0.00
pH:Temp	1	16.35	139	42.25	0.00

AIC	52.25
Likelihood Ratio	1.09E-26
Log-Likelihood	-21.12




Escherichia coli BV17 - 0 mM Lactic Acid
75%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

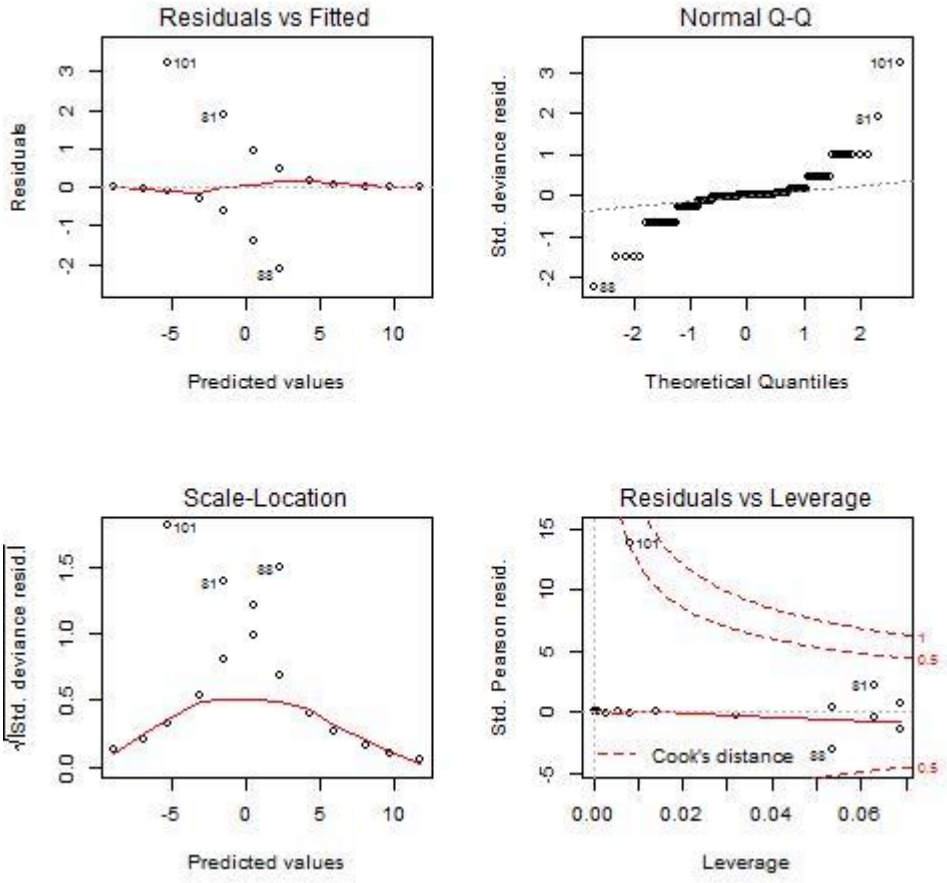

Escherichia coli BV17 - 25 mM Lactic Acid
25%
75%
25%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

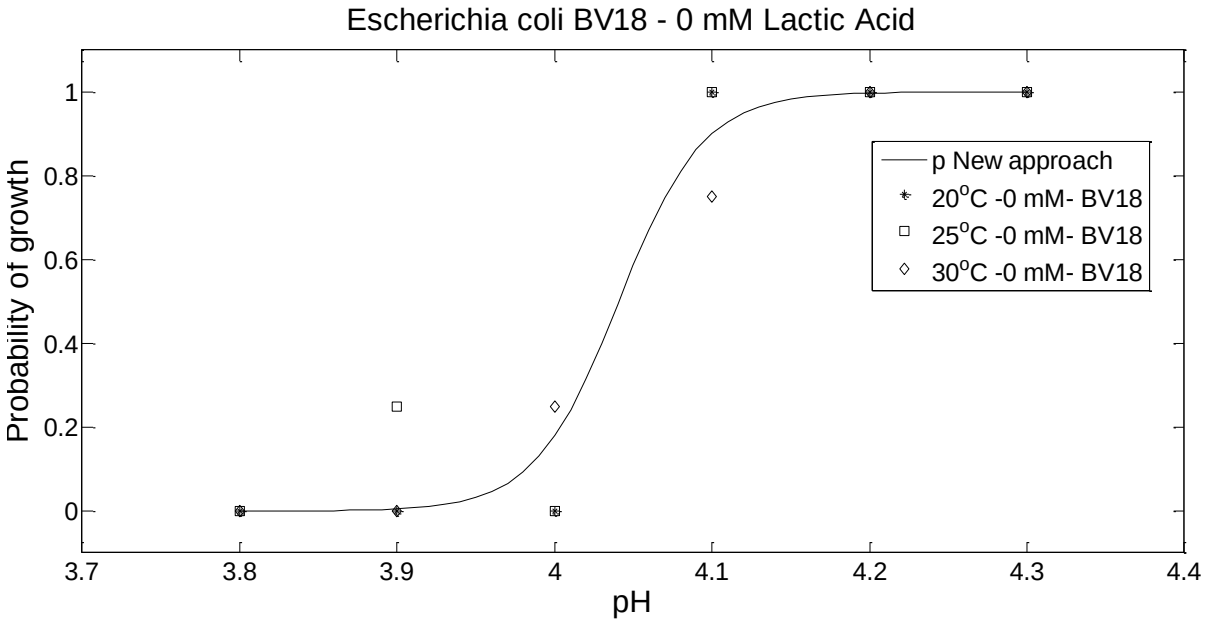
155. *E.coli* BV18 isolated from rabbit feces

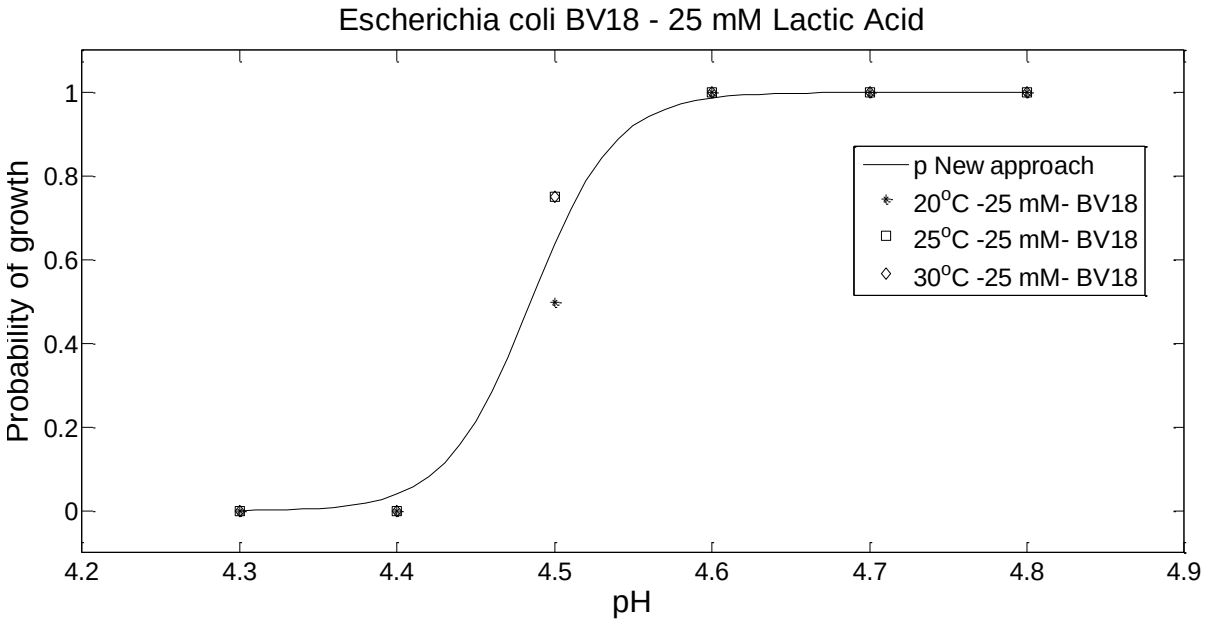
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-150.68	32.51	-4.64	0.00	-230.16	-98.86	0.00	0.00	0.00
pH	37.29	8.05	4.63	0.00	24.46	57.01	1.56E+16	4.21E+10	5.76E+24
LA	-0.66	0.15	-4.43	0.00	-1.04	-0.43	0.52	0.35	0.65

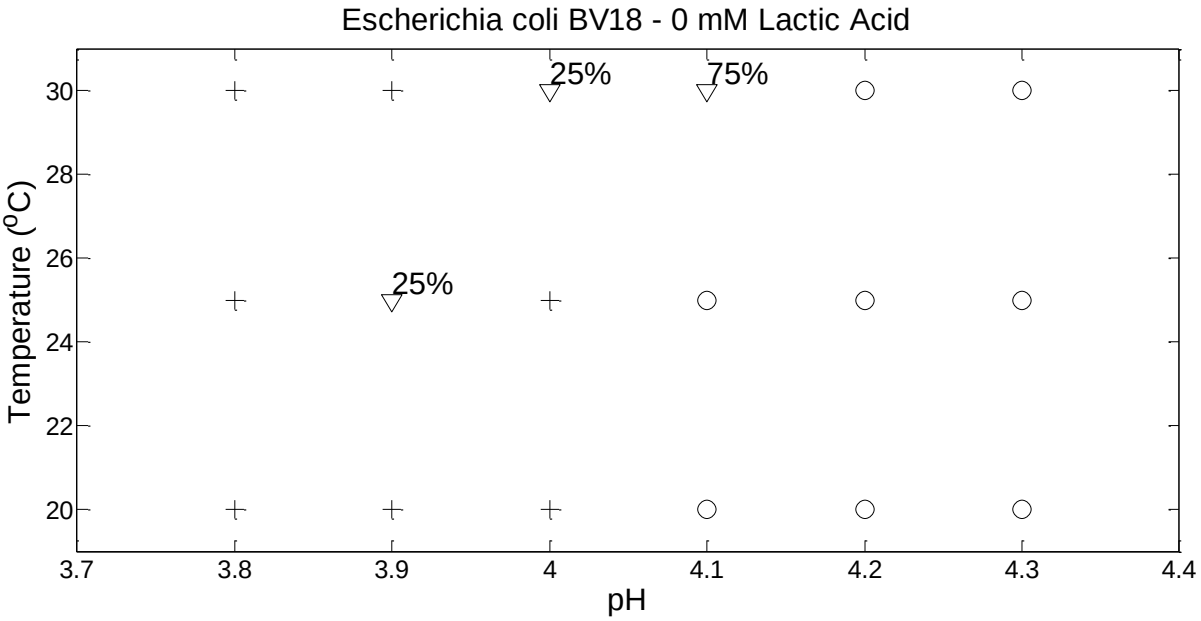
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	197.37	
pH	1	49.21	142	148.16	0.00
LA	1	106.10	141	42.07	0.00

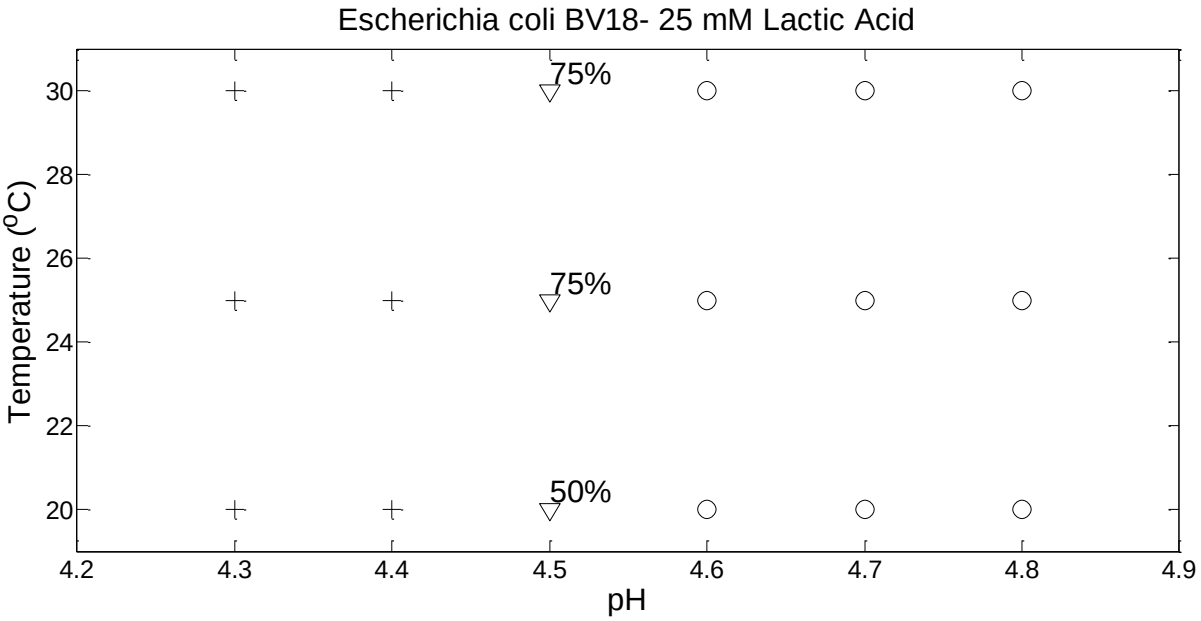
AIC	48.07
Likelihood Ratio	1.89E-34
Log-Likelihood	-21.03




Escherichia coli BV18 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- BV18
25°C -0 mM- BV18
30°C -0 mM- BV18
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli BV18 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- BV18
25°C -25 mM- BV18
30°C -25 mM- BV18
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli BV18 - 0 mM Lactic Acid
25%
75%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

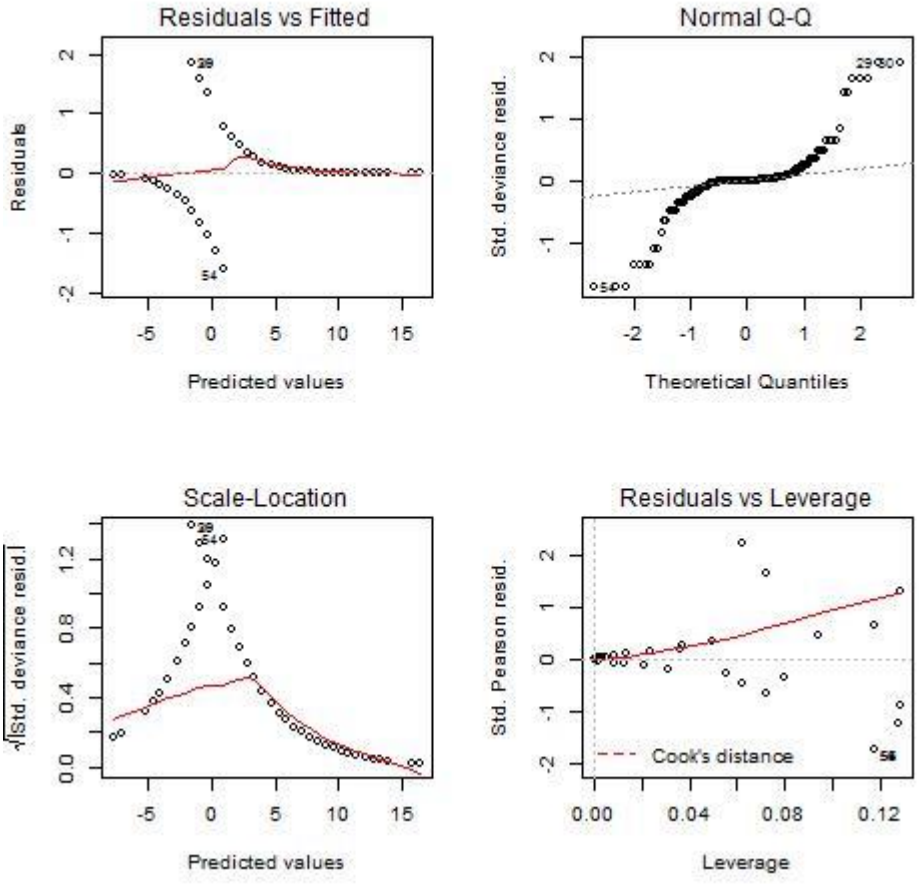

Escherichia coli BV18- 25 mM Lactic Acid
75%
75%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

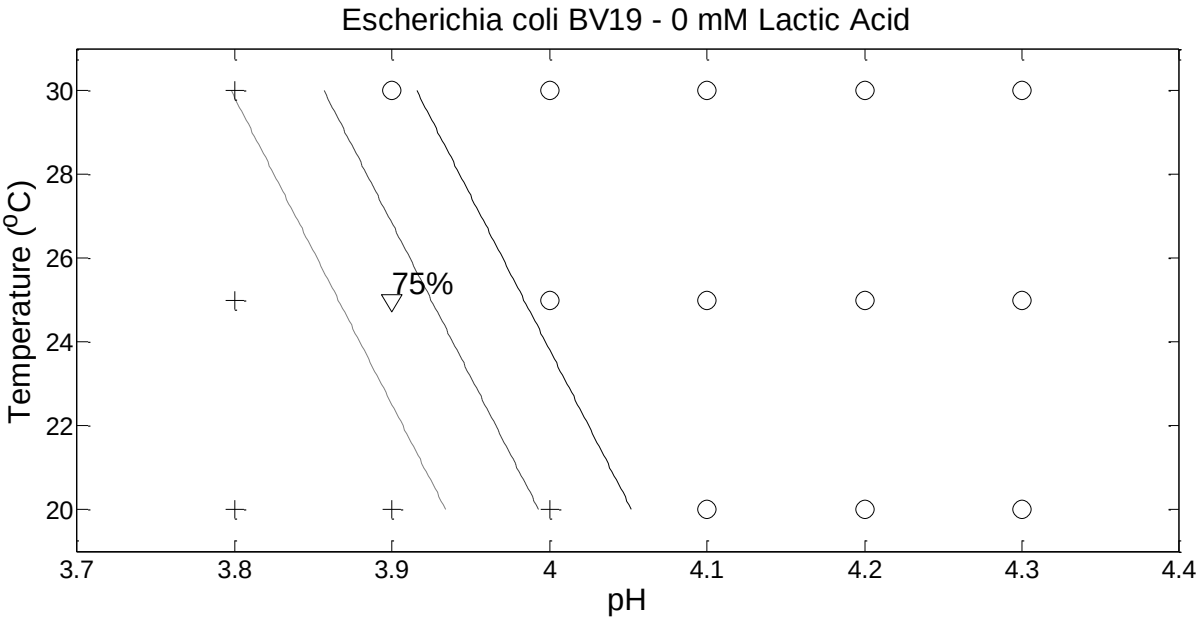
156. *E.coli* BV19 isolated from rabbit feces

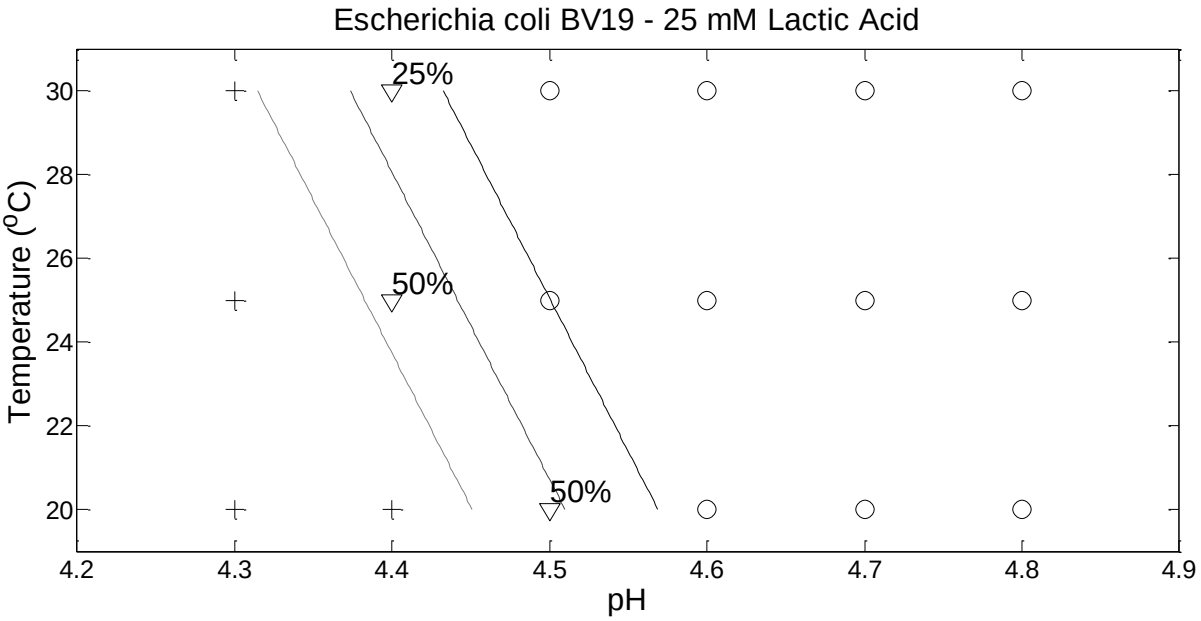
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-158.92	35.13	-4.52	0.00	-243.49	-102.60	0.00	0.00	0.00
pH	37.25	8.25	4.52	0.00	24.05	57.17	1.51E+16	2.79E+10	6.77E+24
LA	-0.77	0.17	-4.44	0.00	-1.19	-0.49	0.46	0.31	0.61
Temp	0.51	0.14	3.54	0.00	0.26	0.84	1.66	1.30	2.31

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	177.26	
pH	1	23.81	142	153.46	0.00
LA	1	89.15	141	64.31	0.00
Temp	1	22.26	140	42.05	0.00

AIC	50.05
Likelihood Ratio	4.06E-29
Log-Likelihood	-21.02




Escherichia coli BV19 - 0 mM Lactic Acid
Temperature (°C)
pH
75%
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

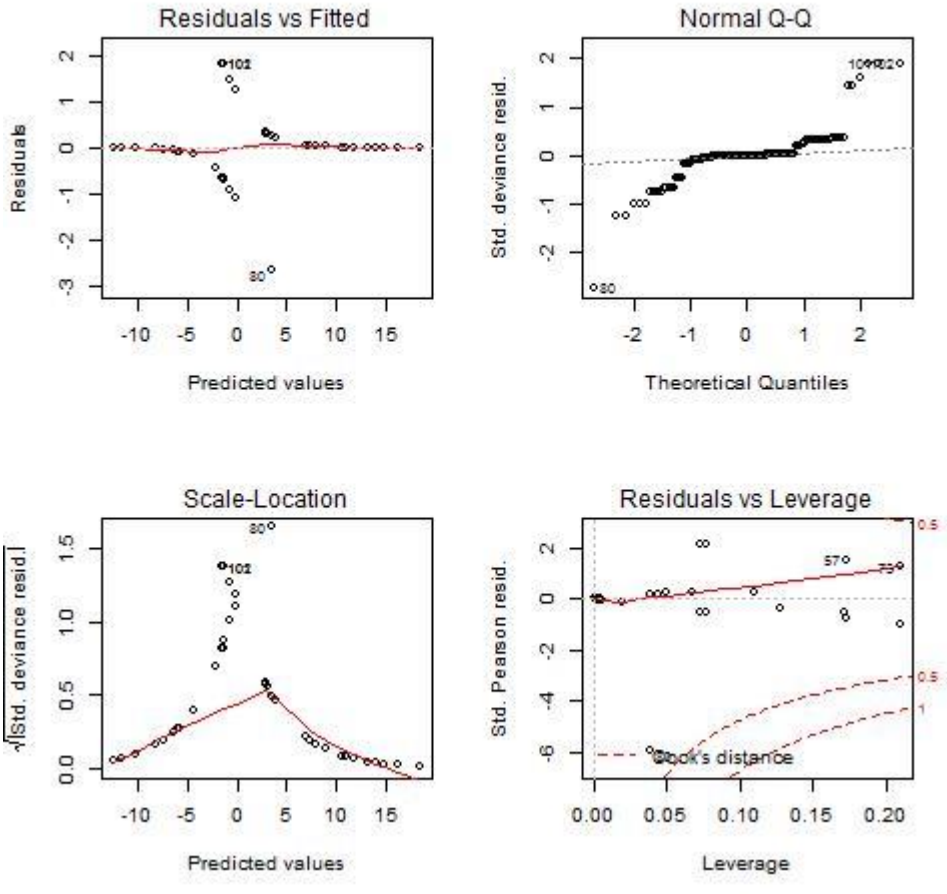

Escherichia coli BV19 - 25 mM Lactic Acid
Temperature (°C)
pH
25%
50%
50%
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

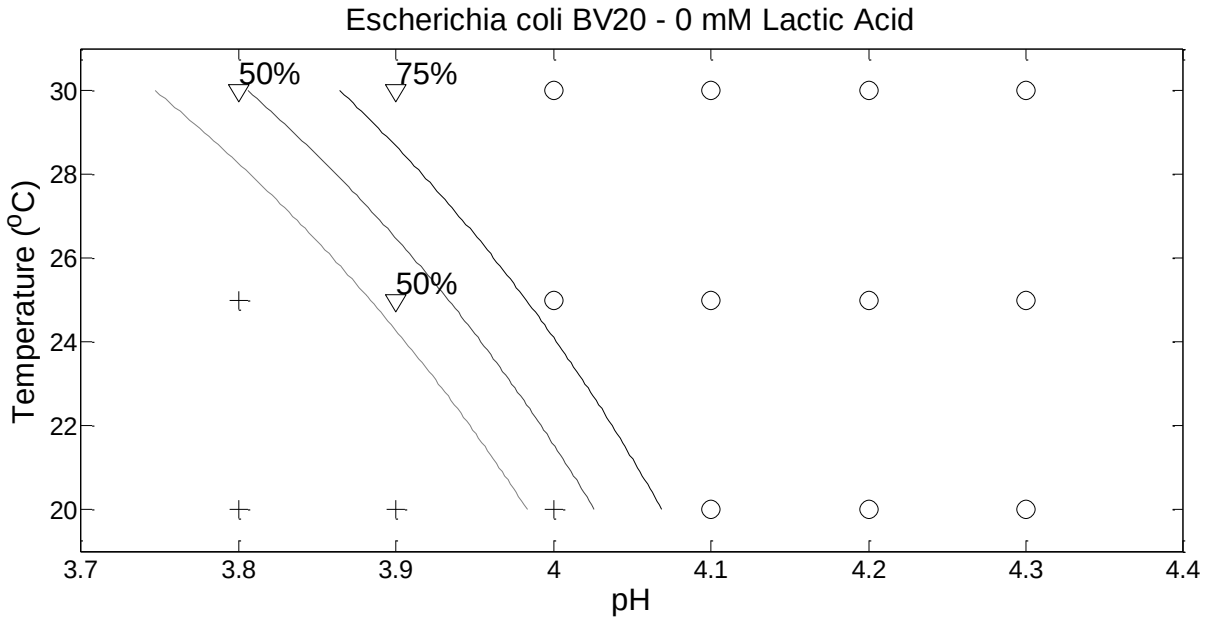
157. *E.coli* BV20 - isolated from human feces

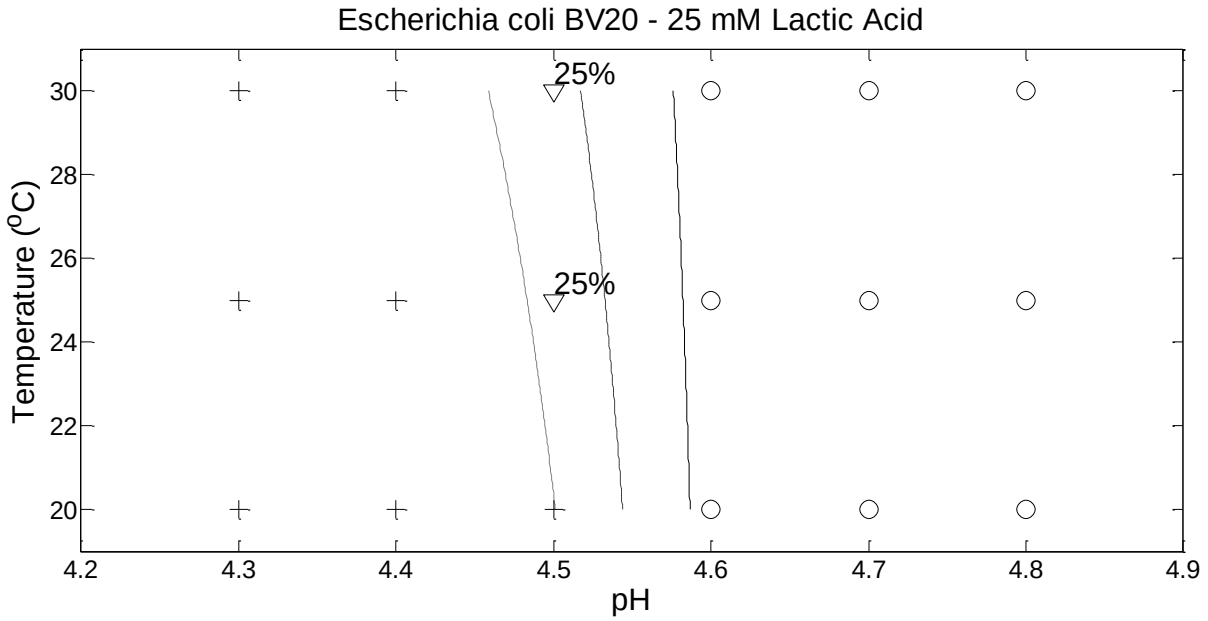
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-336.05	86.06	-3.91	0.00	-558.69	-198.87	0.00	0.00	0.00
pH	79.38	20.43	3.89	0.00	46.92	132.50	2.98E+34	2.39E+20	3.48E+57
LA	-1.07	0.26	-4.08	0.00	-1.75	-0.66	0.34	0.17	0.52
Temp	6.46	2.04	3.16	0.00	3.03	11.39	636.53	20.63	8.88E+04
pH:Temp	-1.40	0.47	-3.00	0.00	-2.52	-0.61	0.25	0.08	0.54

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	191.52	
pH	1	11.09	142	180.43	0.00
LA	1	114.27	141	66.16	0.00
Temp	1	17.01	140	49.14	0.00
pH:Temp	1	14.86	139	34.29	0.00

AIC	44.29
Likelihood Ratio	5.73E-33
Log-Likelihood	-17.14




Escherichia coli BV20 - 0 mM Lactic Acid
50%
75%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

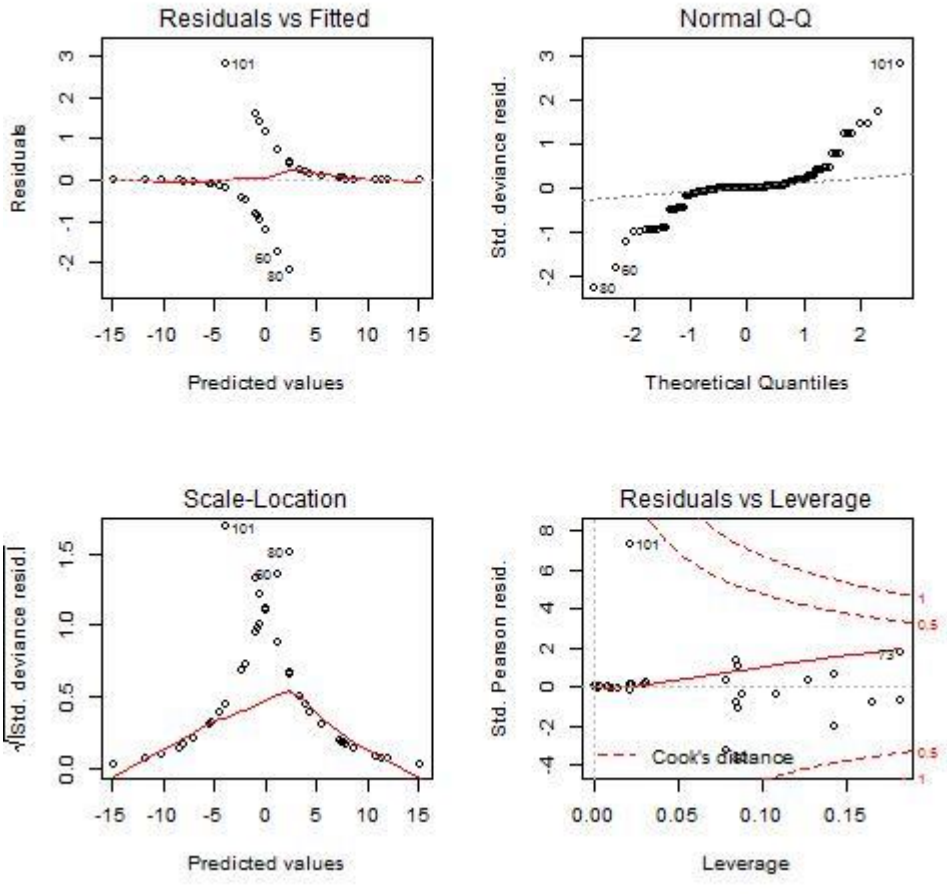

Escherichia coli BV20 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

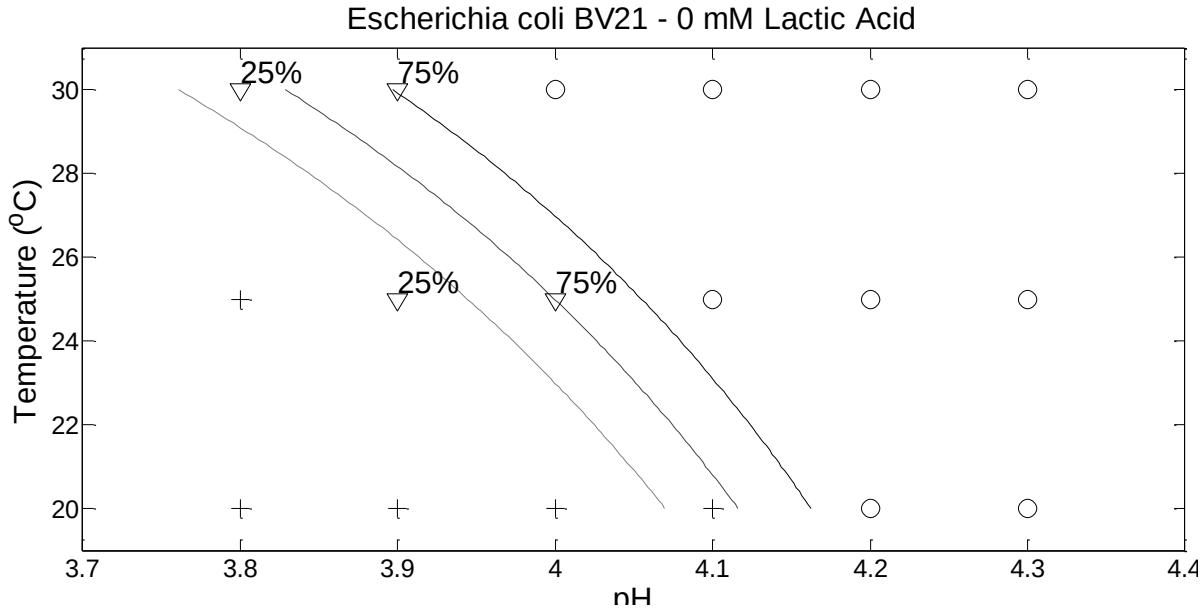
158. *E.coli* BV21 - isolated from horse feces

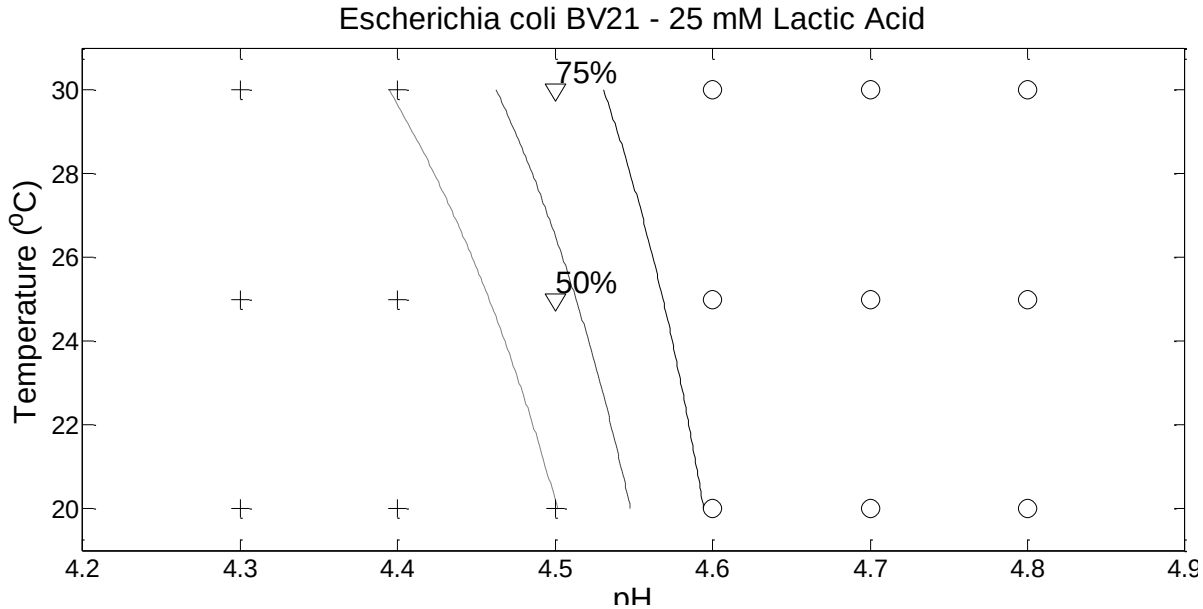
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-337.82	88.40	-3.82	0.00	-564.67	-197.31	0.00	0.00	0.00
pH	77.57	20.47	3.79	0.00	45.09	130.30	4.87E+33	3.82E+19	3.88E+56
LA	-0.82	0.19	-4.22	0.00	-1.30	-0.51	0.44	0.27	0.60
Temp	7.14	2.29	3.12	0.00	3.34	12.85	1267.22	28.35	3.82E+05
pH:Temp	-1.51	0.51	-2.94	0.00	-2.79	-0.65	0.22	0.06	0.52

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	194.91	
pH	1	23.38	142	171.52	0.00
LA	1	85.54	141	85.98	0.00
Temp	1	31.27	140	54.71	0.00
pH:Temp	1	14.53	139	40.18	0.00

AIC	50.18
Likelihood Ratio	1.98E-32
Log-Likelihood	-20.09




Escherichia coli BV21 - 0 mM Lactic Acid
25%
75%
25%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

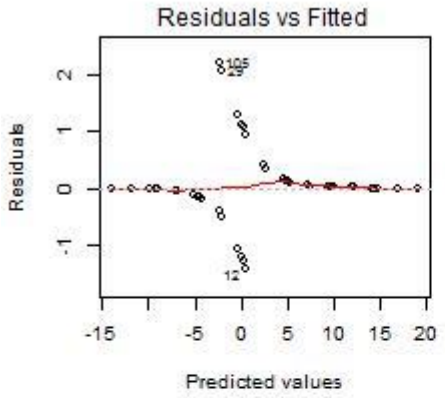

Escherichia coli BV21 - 25 mM Lactic Acid
75%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

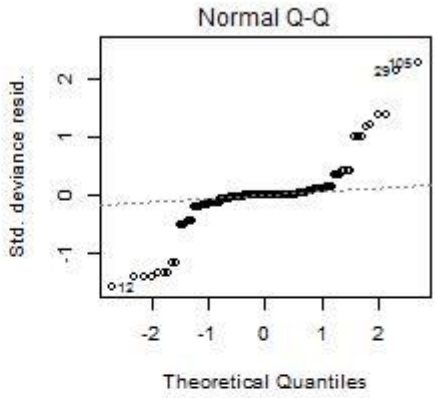
159. *E.coli* BV22 - isolated from horse feces

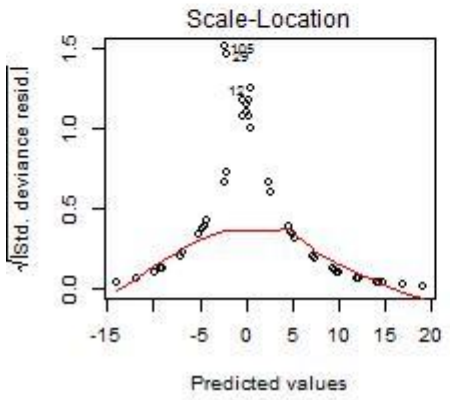
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-204.02	54.35	-3.75	0.00	-350.26	-123.63	0.00	0.00	0.00
pH	47.72	12.65	3.77	0.00	28.99	81.74	5.32E+20	3.89E+12	3.16E+35
LA	-0.75	0.20	-3.70	0.00	-1.29	-0.45	0.47	0.27	0.64
Temp	0.43	0.16	2.74	0.01	0.17	0.81	1.54	1.18	2.25

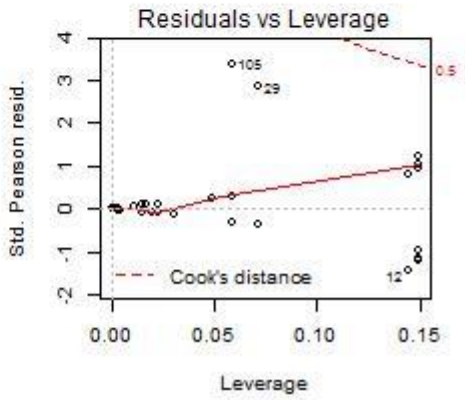
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	194.91	
pH	1	60.91	142	134.00	0.00
LA	1	87.03	141	46.97	0.00
Temp	1	12.46	140	34.51	0.00

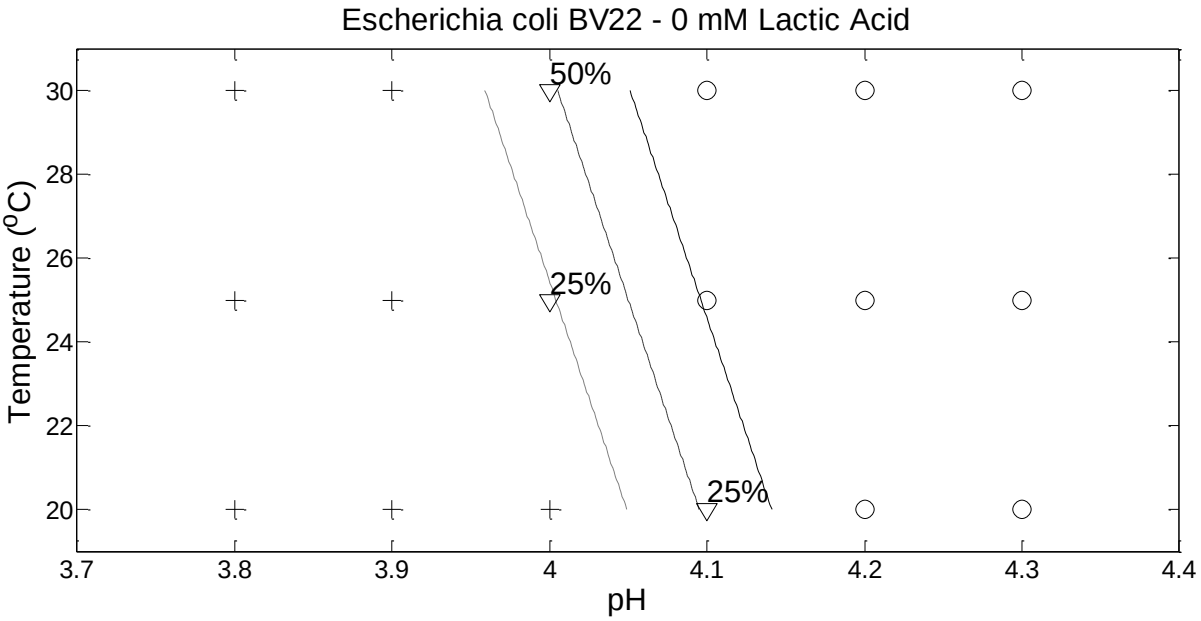
AIC	42.51
Likelihood Ratio	1.5E-34
Log-Likelihood	-17.25

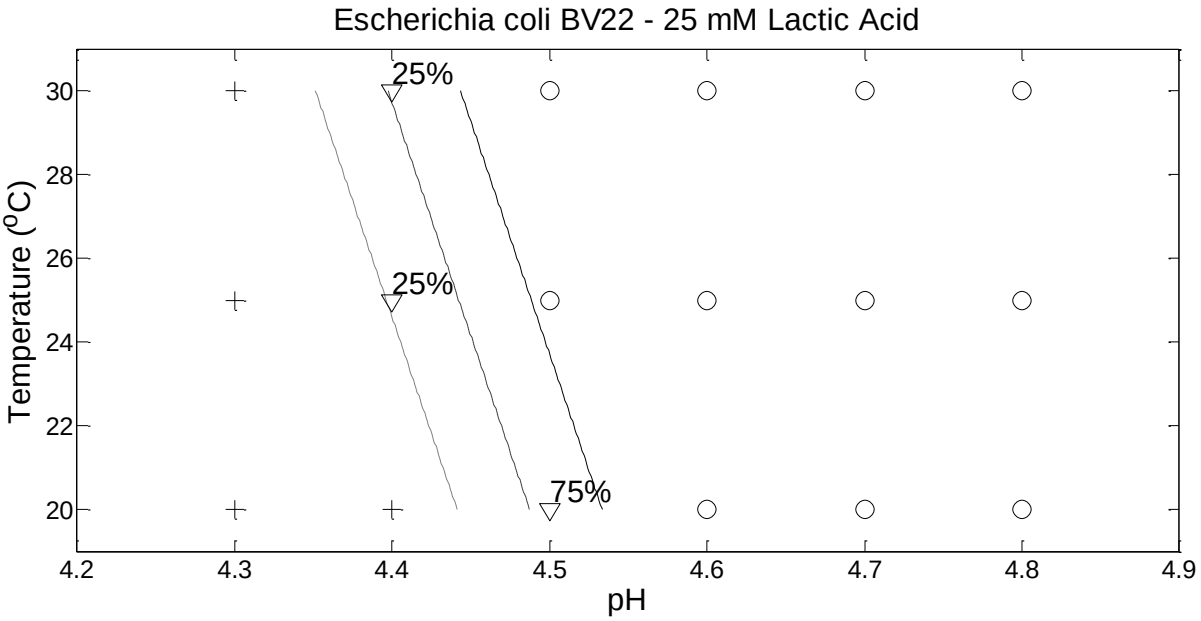









Escherichia coli BV22 - 0 mM Lactic Acid
50%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

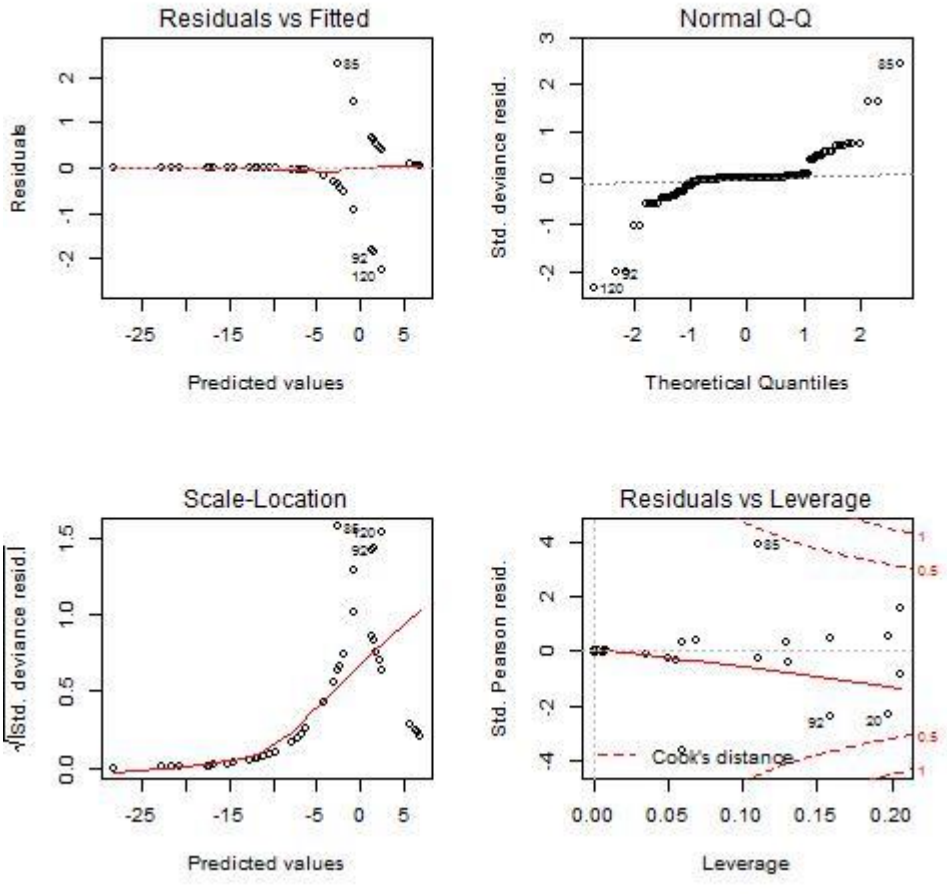

Escherichia coli BV22 - 25 mM Lactic Acid
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

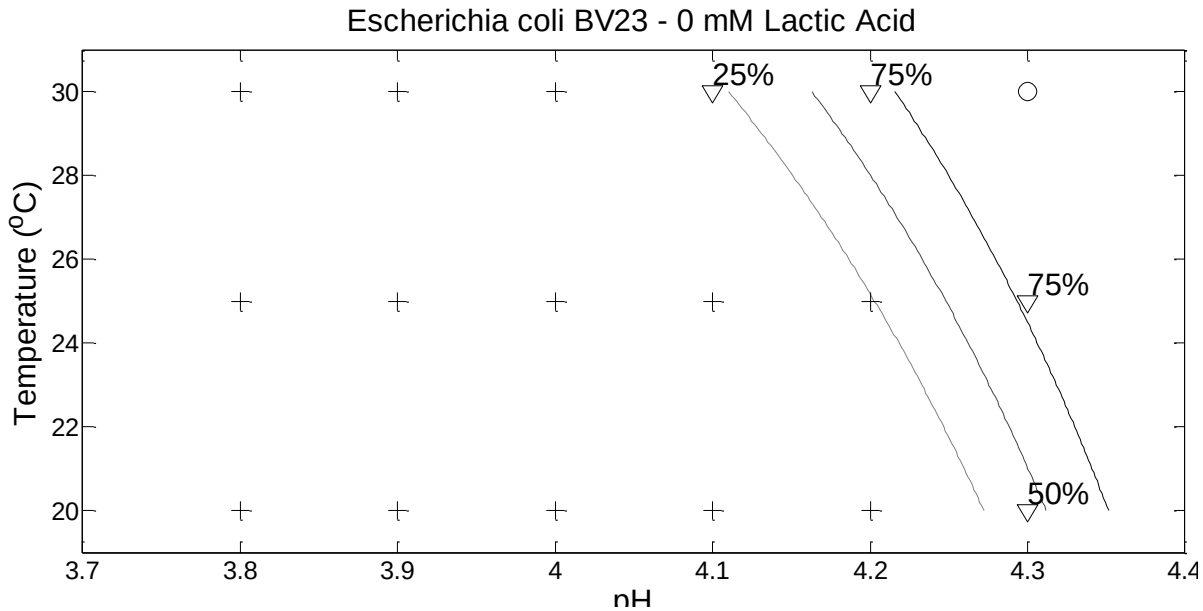
160. *E.coli* BV23 - isolated from horse feces

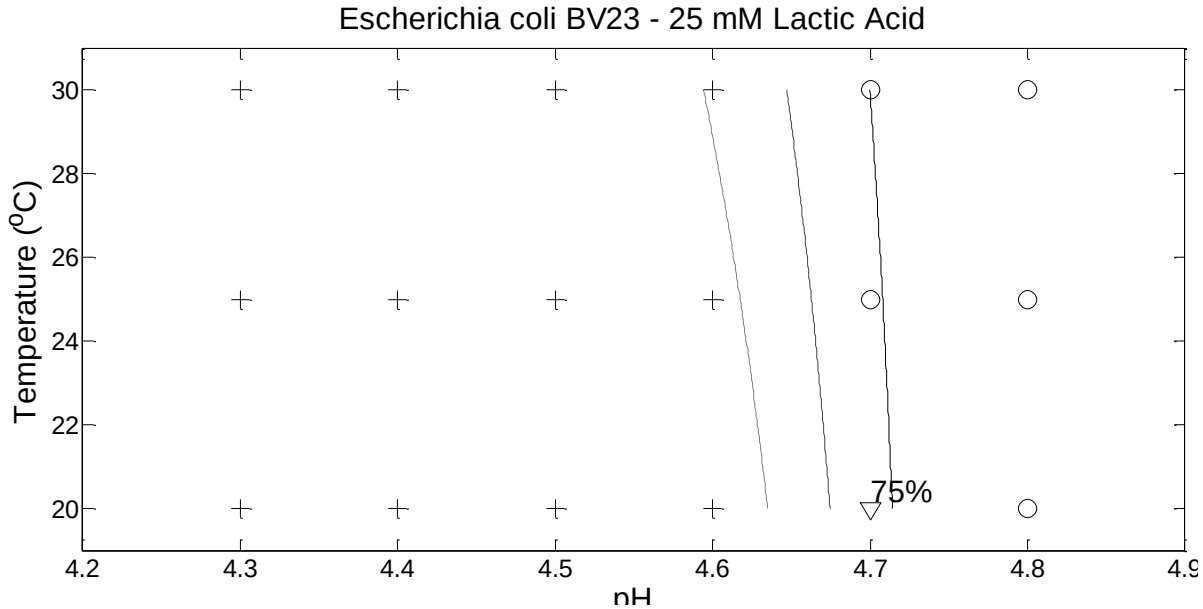
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-371.52	99.10	-3.75	0.00	-603.66	-204.26	0.00	0.00	0.00
pH	83.29	22.25	3.74	0.00	45.77	135.47	1.49E+36	7.57E+19	6.84E+58
LA	-0.81	0.20	-3.97	0.00	-1.31	-0.48	0.45	0.27	0.62
Temp	6.61	2.58	2.56	0.01	2.00	12.39	742.68	7.38	2.40E+05
pH:Temp	-1.39	0.57	-2.44	0.01	-2.66	-0.37	0.25	0.07	0.69

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	161.95	
pH	1	46.07	142	115.88	0.00
LA	1	66.19	141	49.69	0.00
Temp	1	11.16	140	38.52	0.00
pH:Temp	1	7.43	139	31.09	0.01

AIC	41.09
Likelihood Ratio	2.55E-27
Log-Likelihood	-15.55




Escherichia coli BV23 - 0 mM Lactic Acid
25%
75%
75%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

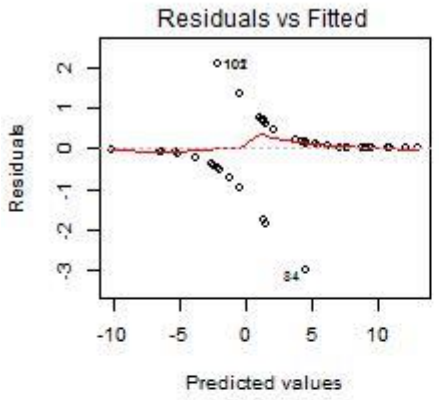

Escherichia coli BV23 - 25 mM Lactic Acid
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

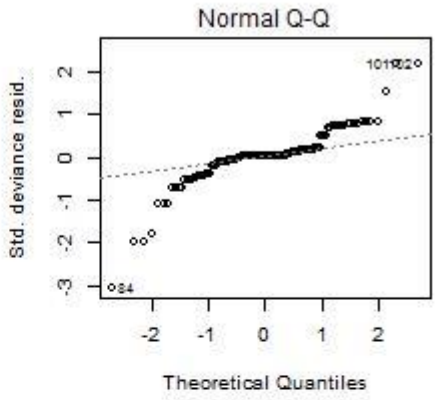
161. *E.coli* BV24 - isolated from horse feces

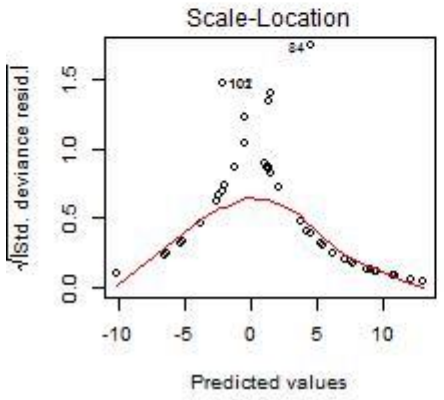
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-286.26	68.34	-4.19	0.00	-445.90	-171.83	0.00	0.00	0.00
pH	67.47	16.09	4.19	0.00	40.49	105.00	2.01E+29	3.83E+17	4.00E+45
LA	-0.63	0.13	-4.80	0.00	-0.94	-0.42	0.53	0.39	0.66
Temp	6.35	1.92	3.30	0.00	3.01	10.73	570.69	20.24	45812.57
pH:Temp	-1.41	0.44	-3.18	0.00	-2.42	-0.64	0.24	0.09	0.53

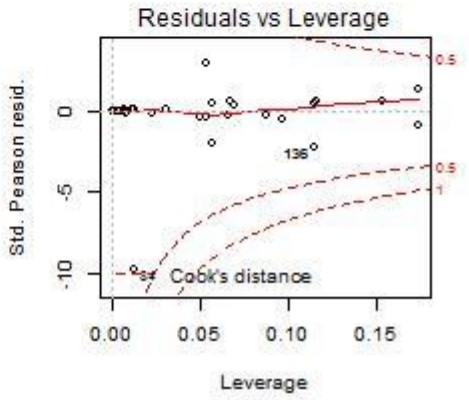
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	184.67	
pH	1	25.45	142	159.22	0.00
LA	1	82.26	141	76.96	0.00
Temp	1	13.91	140	63.05	0.00
pH:Temp	1	15.05	139	48.00	0.00

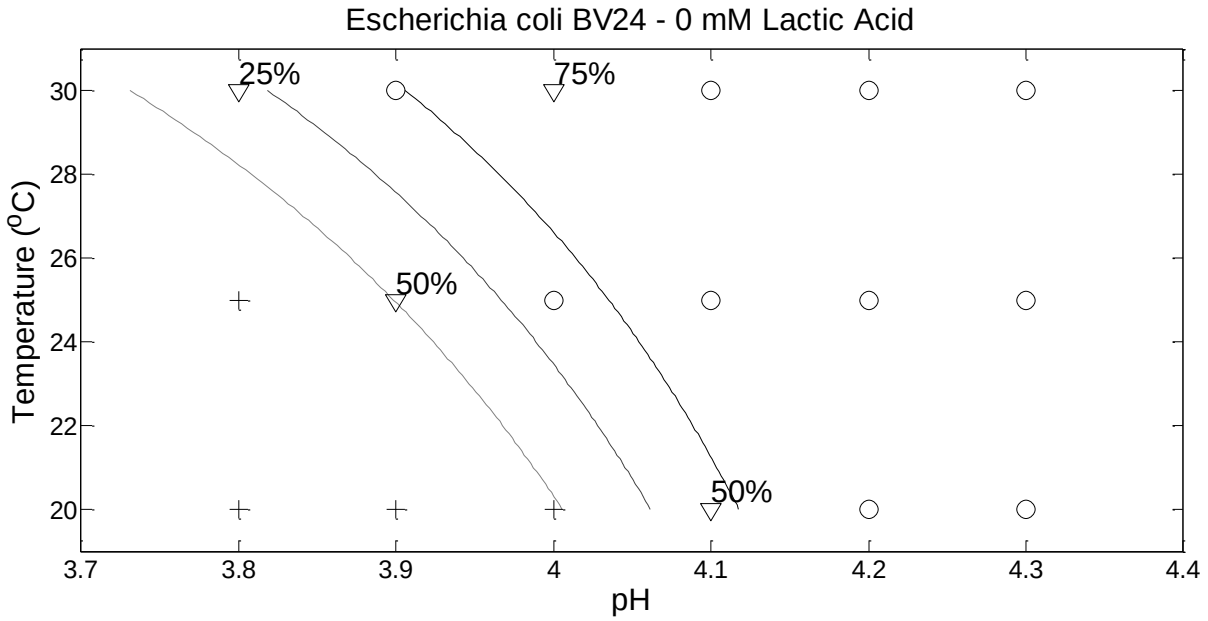
AIC	58.00
Likelihood Ratio	1.46E-28
Log-Likelihood	-24.00

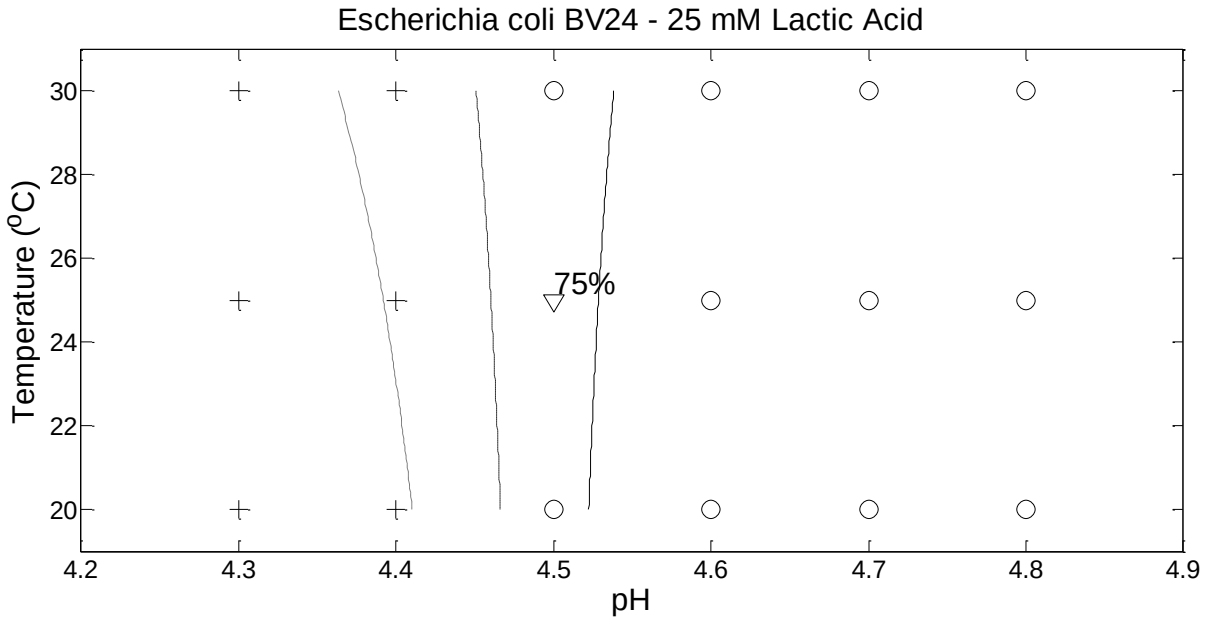









Escherichia coli BV24 - 0 mM Lactic Acid
25%
75%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

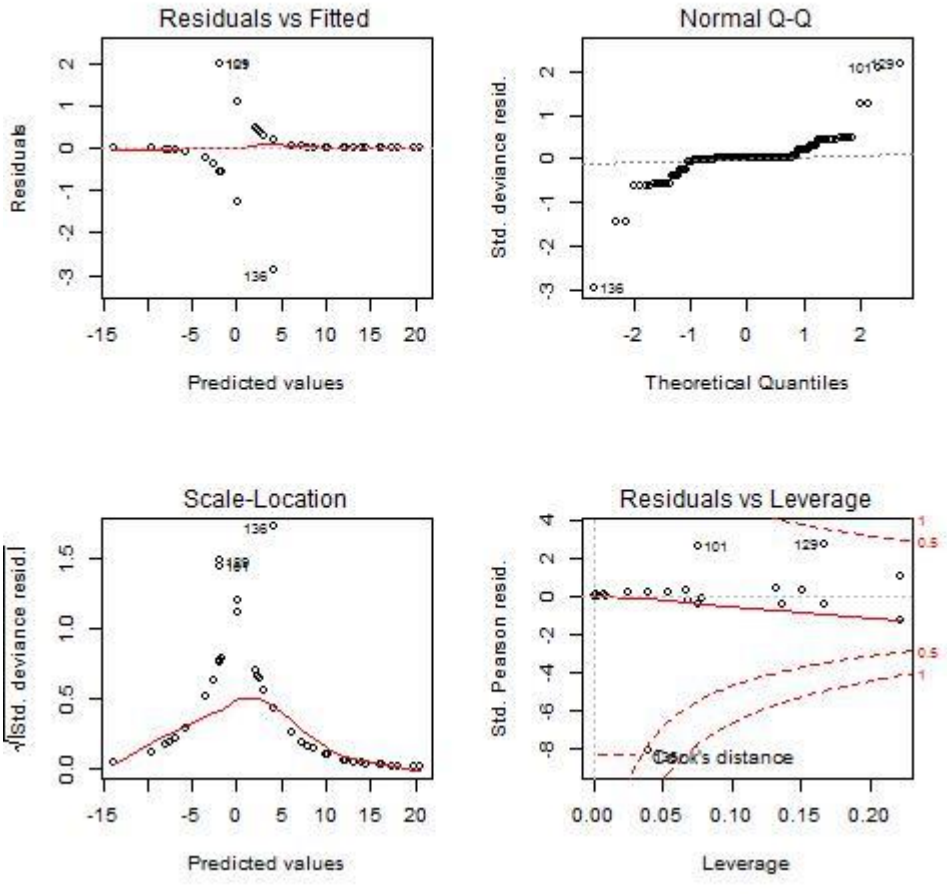

Escherichia coli BV24 - 25 mM Lactic Acid
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

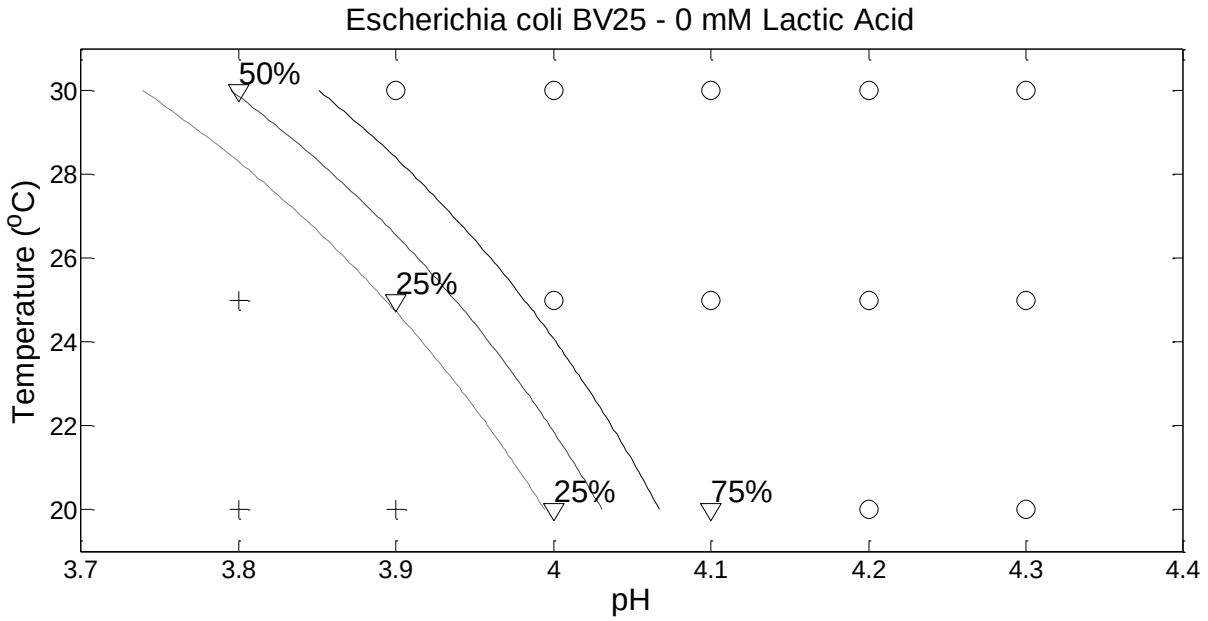
162. *E.coli* BV25 - isolated from bird feces

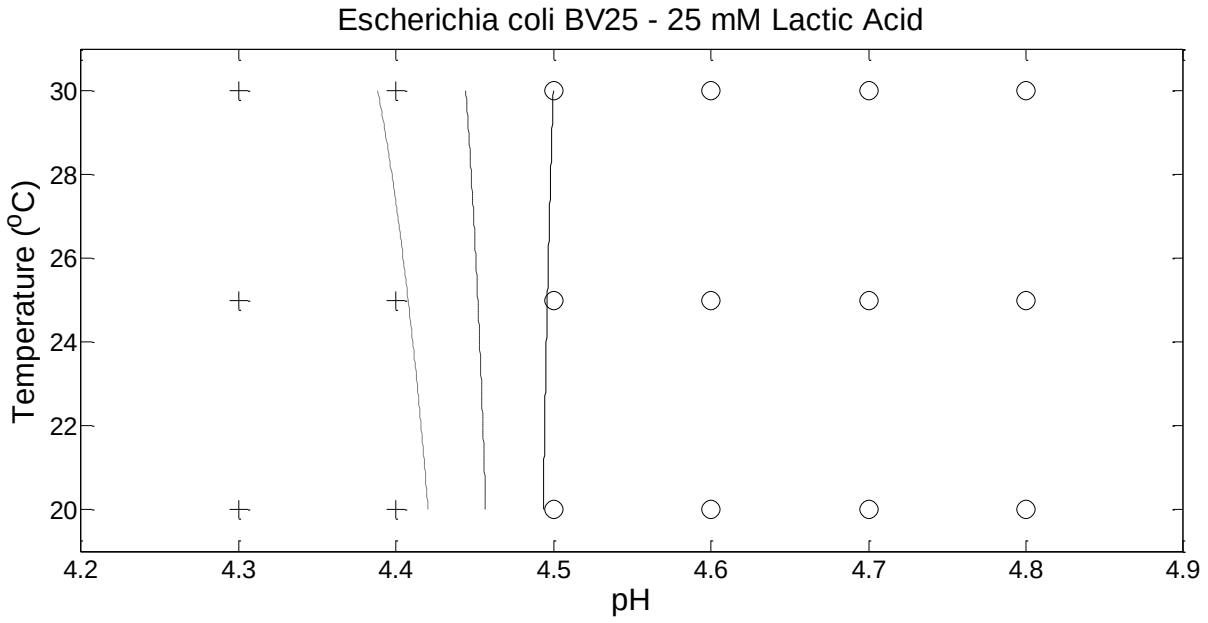
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-426.89	103.30	-4.13	0.00	-677.61	-257.51	0.00	0.00	0.00
pH	101.30	24.63	4.11	0.00	61.02	161.44	9.87E+43	3.16E+26	1.30E+70
LA	-1.02	0.26	-3.99	0.00	-1.70	-0.63	0.36	0.18	0.53
Temp	9.24	2.58	3.58	0.00	4.89	15.45	1.03E+04	132.94	5.14E+06
pH:Temp	-2.06	0.60	-3.45	0.00	-3.51	-1.06	0.13	0.03	0.35

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	178.87	
pH	1	22.22	142	156.66	0.00
LA	1	89.78	141	66.87	0.00
Temp	1	16.71	140	50.17	0.00
pH:Temp	1	21.60	139	28.56	0.00

AIC	38.56
Likelihood Ratio	1.75E-31
Log-Likelihood	-14.28




Escherichia coli BV25 - 0 mM Lactic Acid
50%
25%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

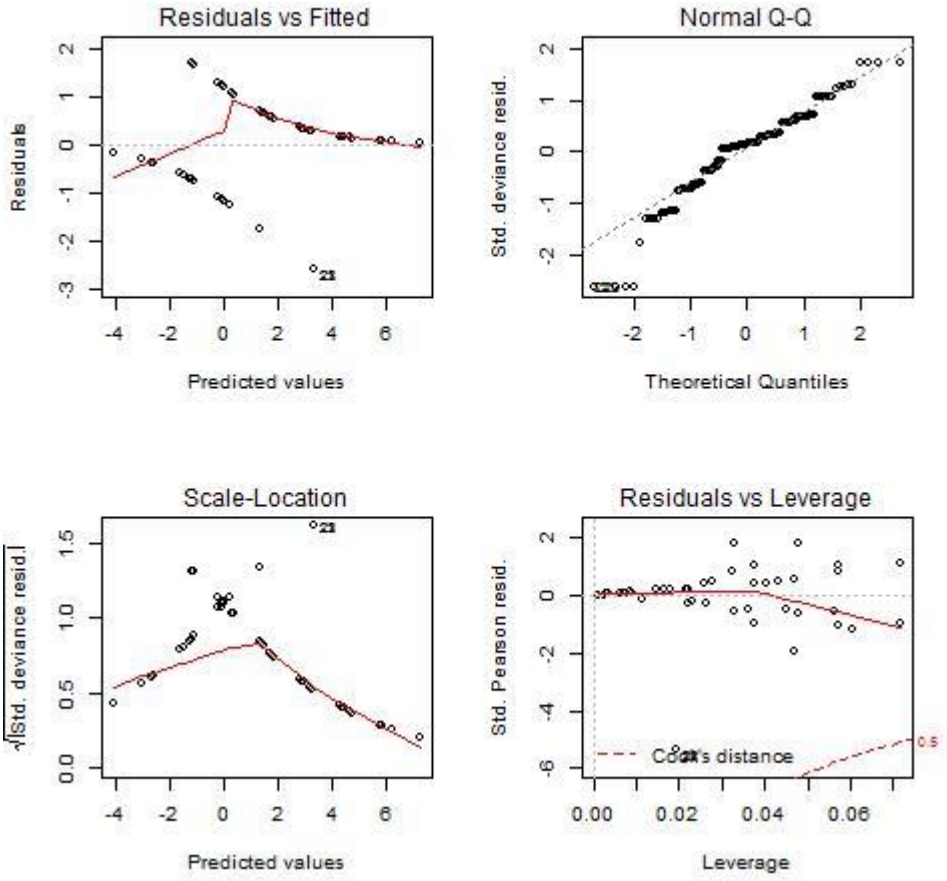

Escherichia coli BV25 - 25 mM Lactic Acid
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

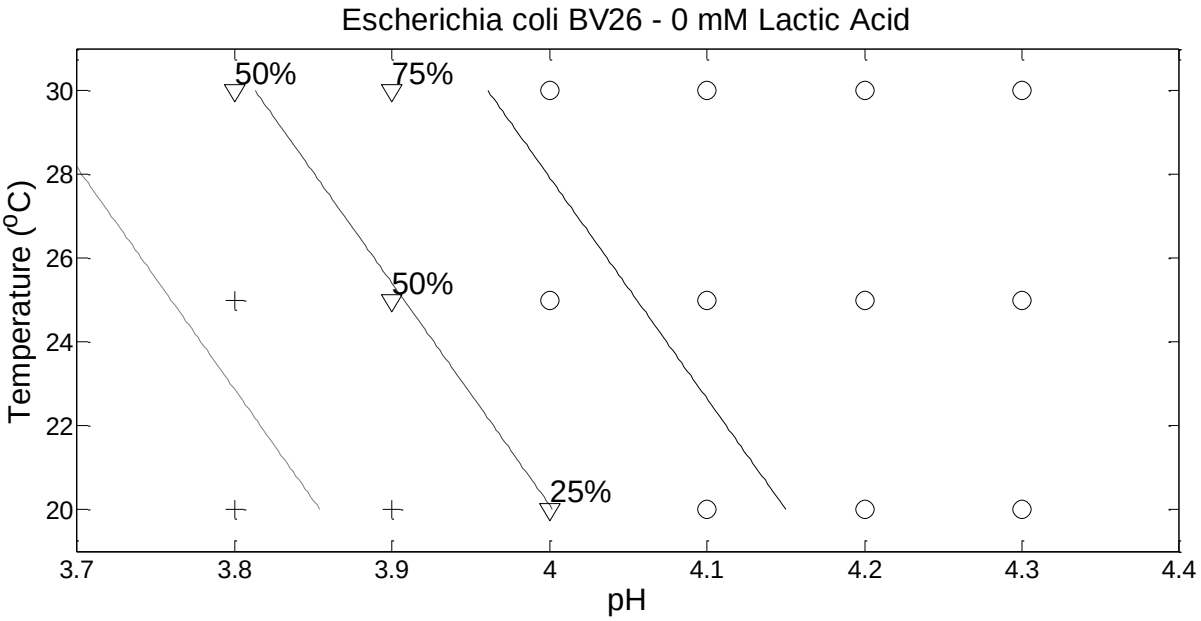
163. *E.coli* BV26 - isolated from bird feces

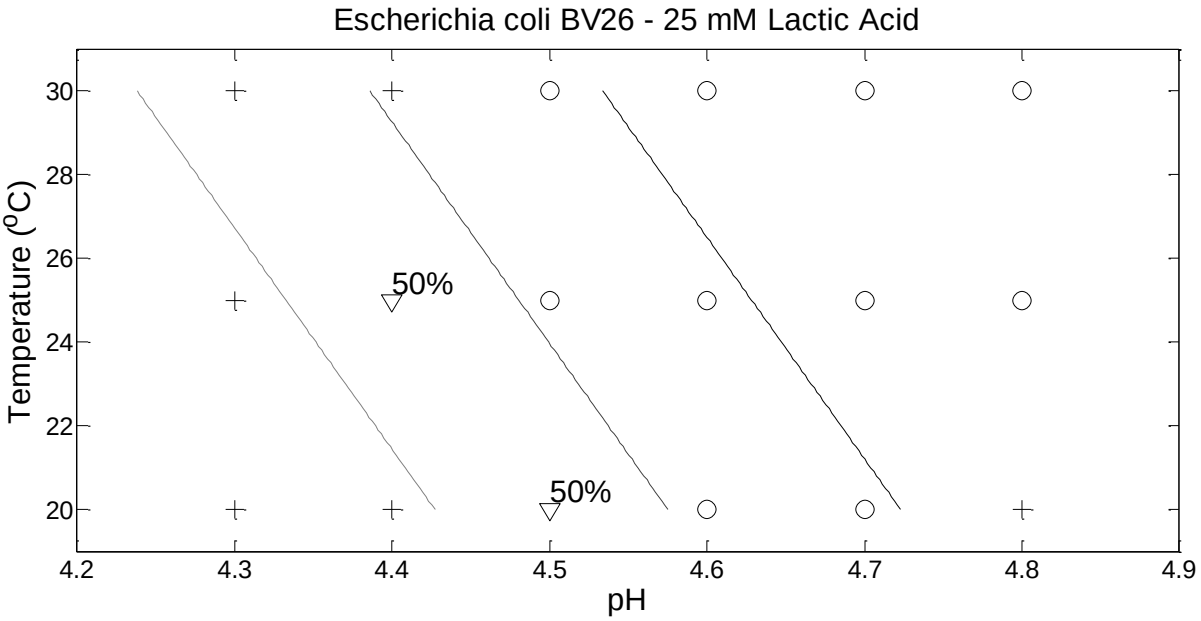
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-65.08	11.10	-5.86	0.00	-89.71	-45.74	0.00	0.00	0.00
pH	14.86	2.55	5.83	0.00	10.41	20.50	2.84E+06	3.32E+04	8.01E+08
LA	-0.34	0.06	-5.63	0.00	-0.47	-0.23	0.71	0.62	0.79
Temp	0.28	0.08	3.73	0.00	0.14	0.44	1.32	1.15	1.55

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	183.32	
pH	1	9.82	142	173.49	0.00
LA	1	62.23	141	111.26	0.00
Temp	1	17.99	140	93.28	0.00

AIC	101.28
Likelihood Ratio	2.15E-19
Log-Likelihood	-46.64




Escherichia coli BV26 - 0 mM Lactic Acid
50%
75%
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

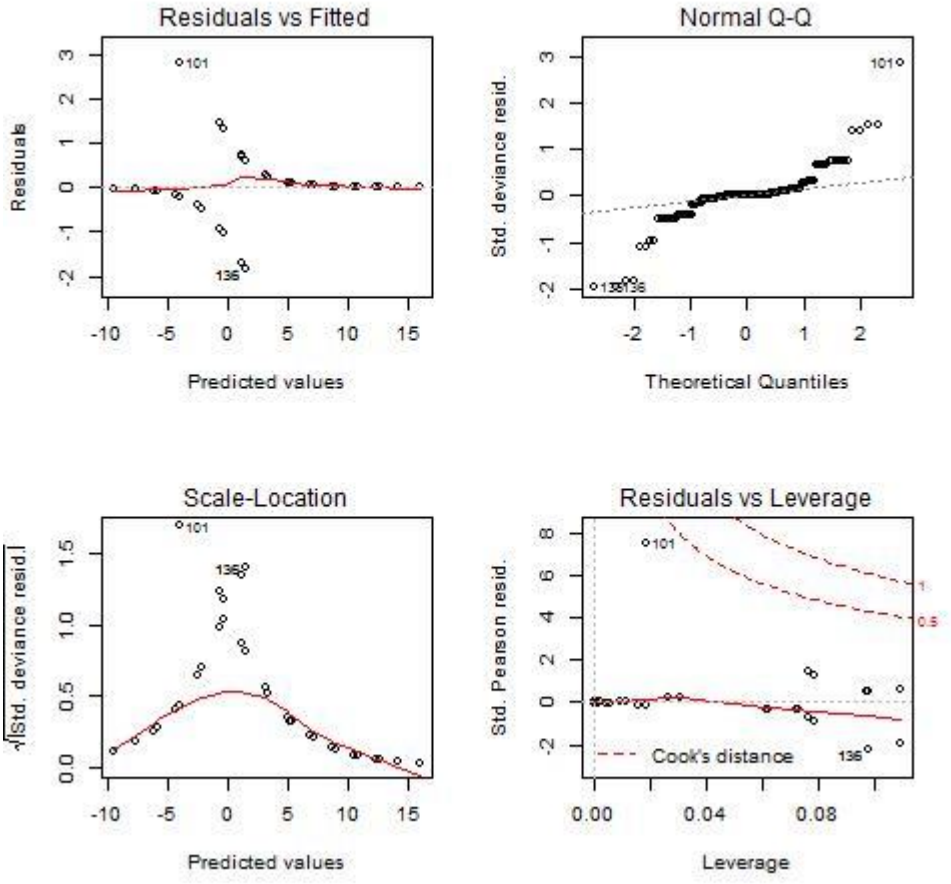

Escherichia coli BV26 - 25 mM Lactic Acid
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

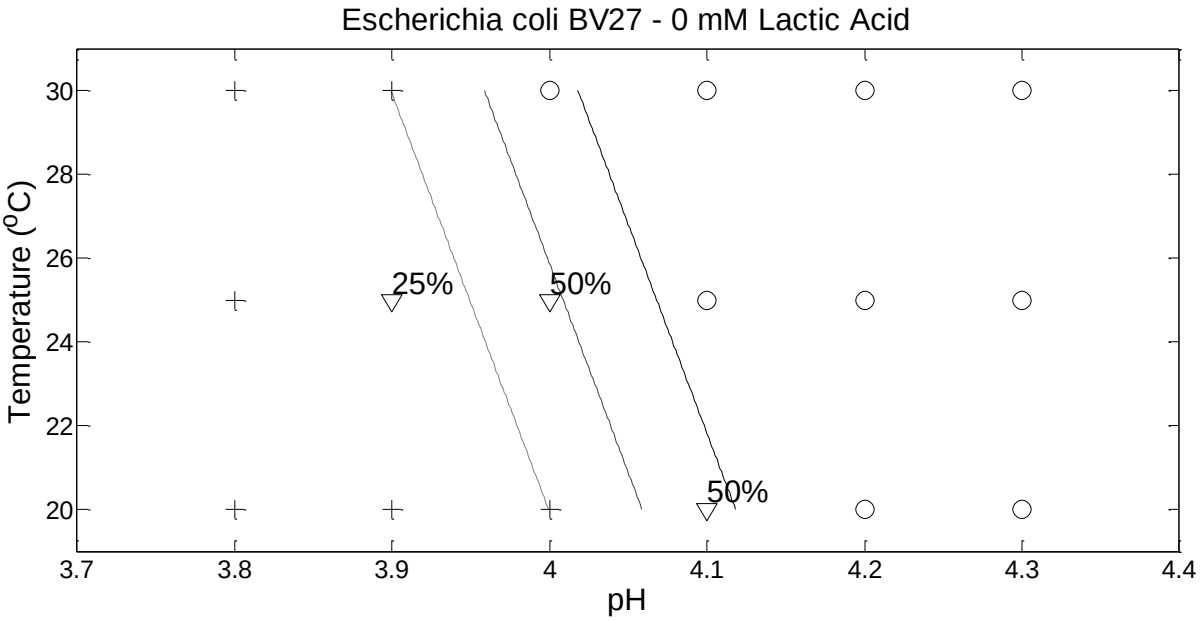
164. *E.coli* BV27 - isolated from bird feces

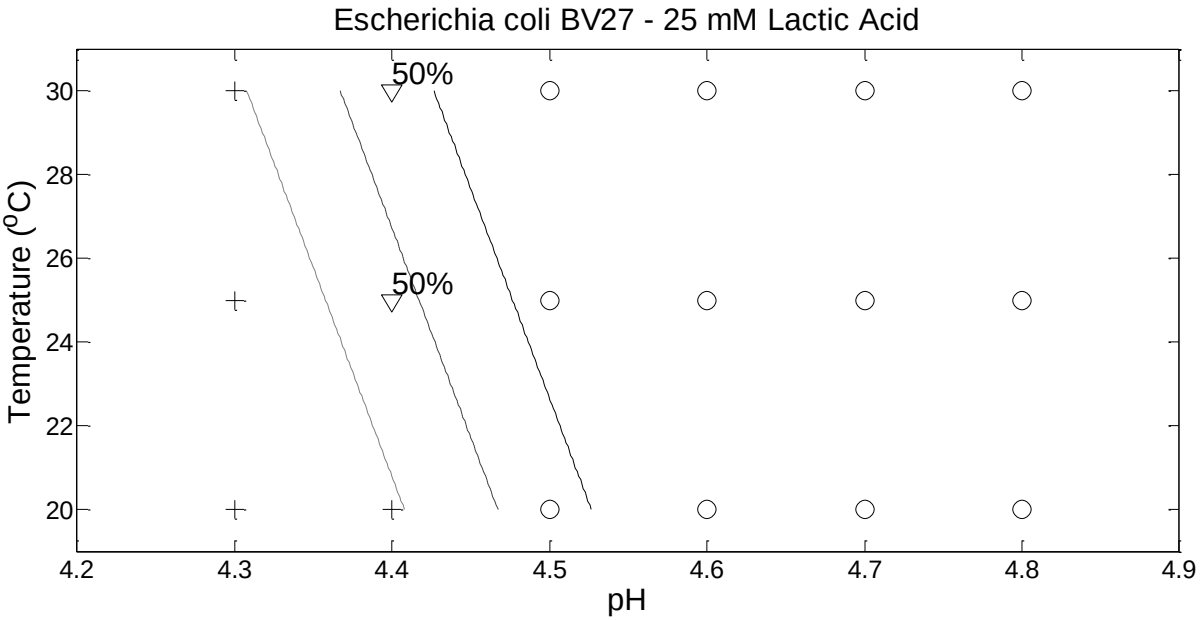
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-157.55	33.88	-4.65	0.00	-238.06	-102.84	0.00	0.00	0.00
pH	36.99	7.93	4.66	0.00	24.18	55.83	1.16E+16	3.17E+10	1.77E+24
LA	-0.60	0.13	-4.51	0.00	-0.92	-0.39	0.55	0.40	0.68
Temp	0.37	0.13	2.91	0.00	0.15	0.67	1.45	1.16	1.95

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	187.20	
pH	1	53.18	142	134.02	0.00
LA	1	79.13	141	54.89	0.00
Temp	1	12.81	140	42.08	0.00

AIC	50.08
Likelihood Ratio	2.98E-31
Log-Likelihood	-21.04




Escherichia coli BV27 - 0 mM Lactic Acid
Temperature (°C)
pH
25%
50%
50%
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

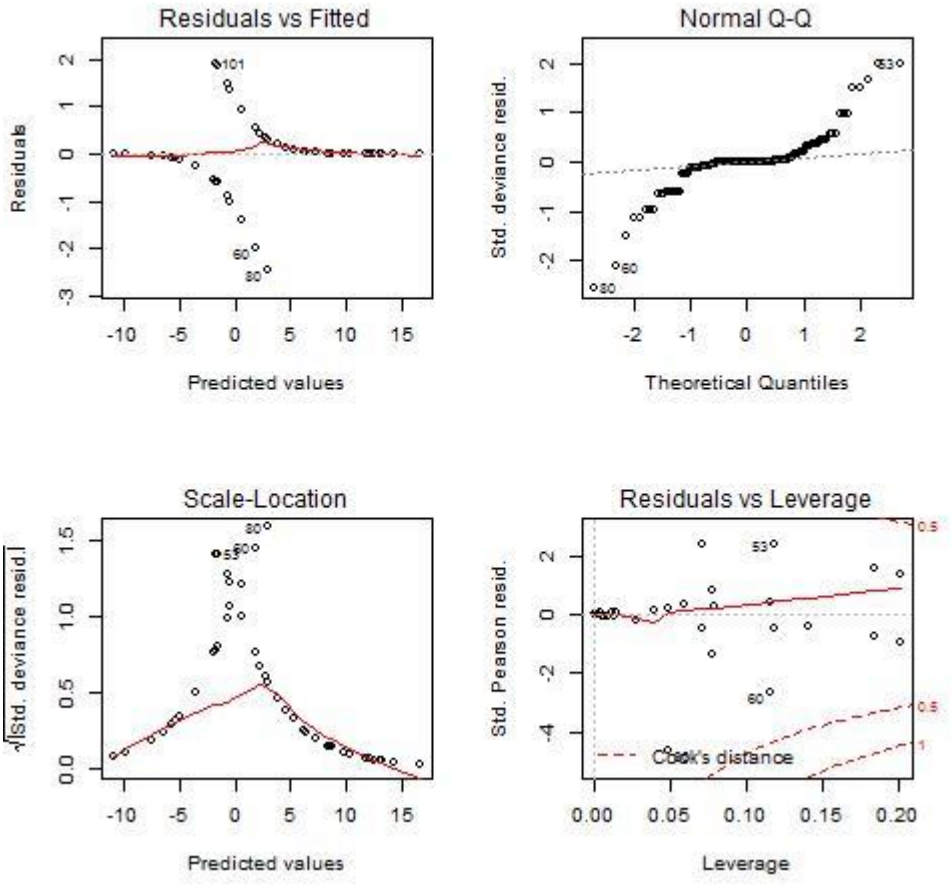

Escherichia coli BV27 - 25 mM Lactic Acid
Temperature (°C)
pH
50%
50%
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

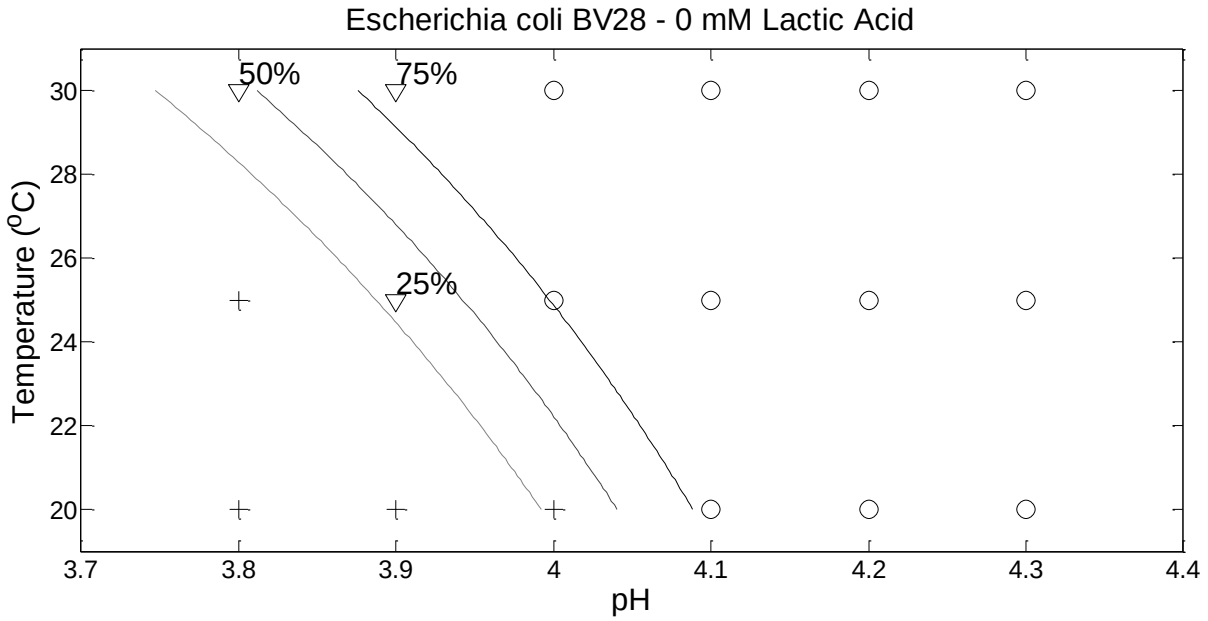
165. *E.coli* BV28 - isolated from human feces

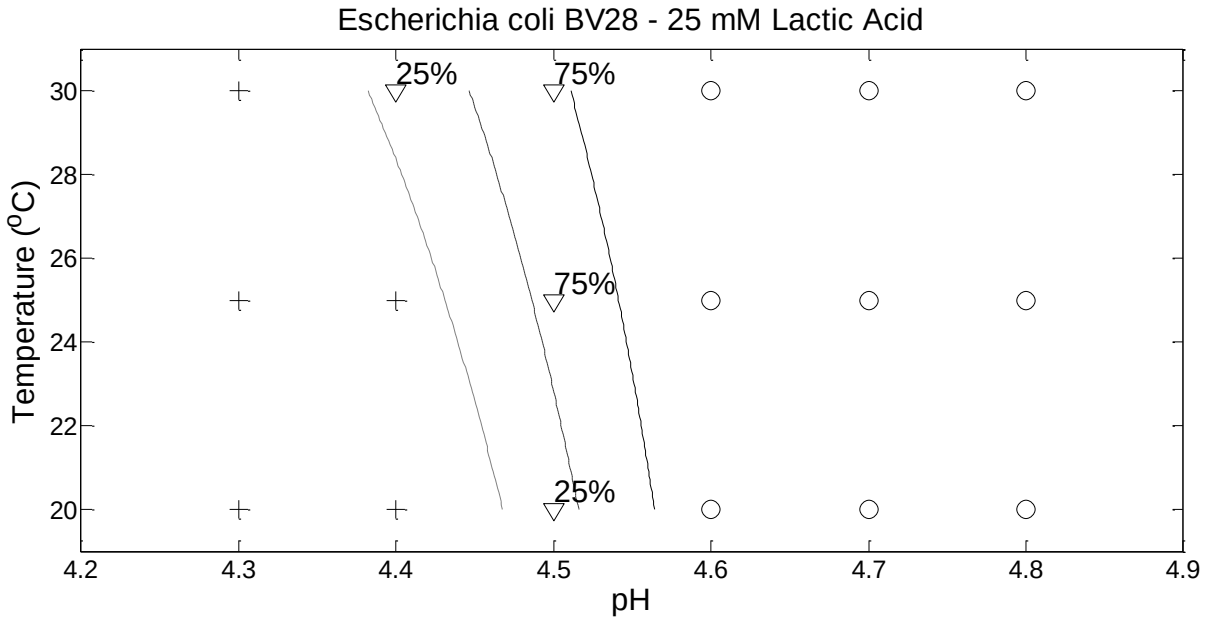
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-292.28	76.95	-3.80	0.00	-477.72	-167.52	0.00	0.00	0.00
pH	68.48	18.11	3.78	0.00	39.12	112.11	5.48E+29	9.80E+16	4.88E+48
LA	-0.87	0.20	-4.28	0.00	-1.37	-0.55	0.42	0.25	0.58
Temp	5.41	1.95	2.78	0.01	2.04	9.92	222.53	7.70	2.04E+04
pH:Temp	-1.14	0.44	-2.58	0.01	-2.16	-0.37	0.32	0.12	0.69

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	185.96	
pH	1	18.69	142	167.28	0.00
LA	1	95.68	141	71.59	0.00
Temp	1	23.53	140	48.06	0.00
pH:Temp	1	9.16	139	38.91	0.00

AIC	48.91
Likelihood Ratio	8.69E-31
Log-Likelihood	-19.45




Escherichia coli BV28 - 0 mM Lactic Acid
50%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

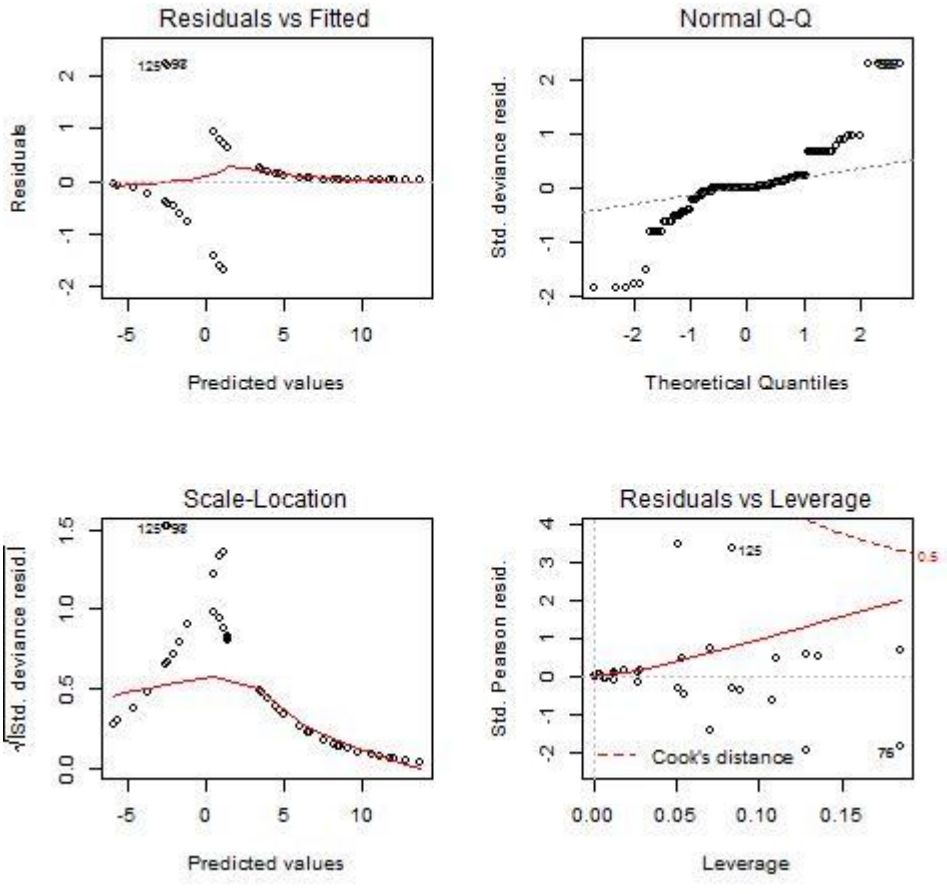

Escherichia coli BV28 - 25 mM Lactic Acid
25%
75%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

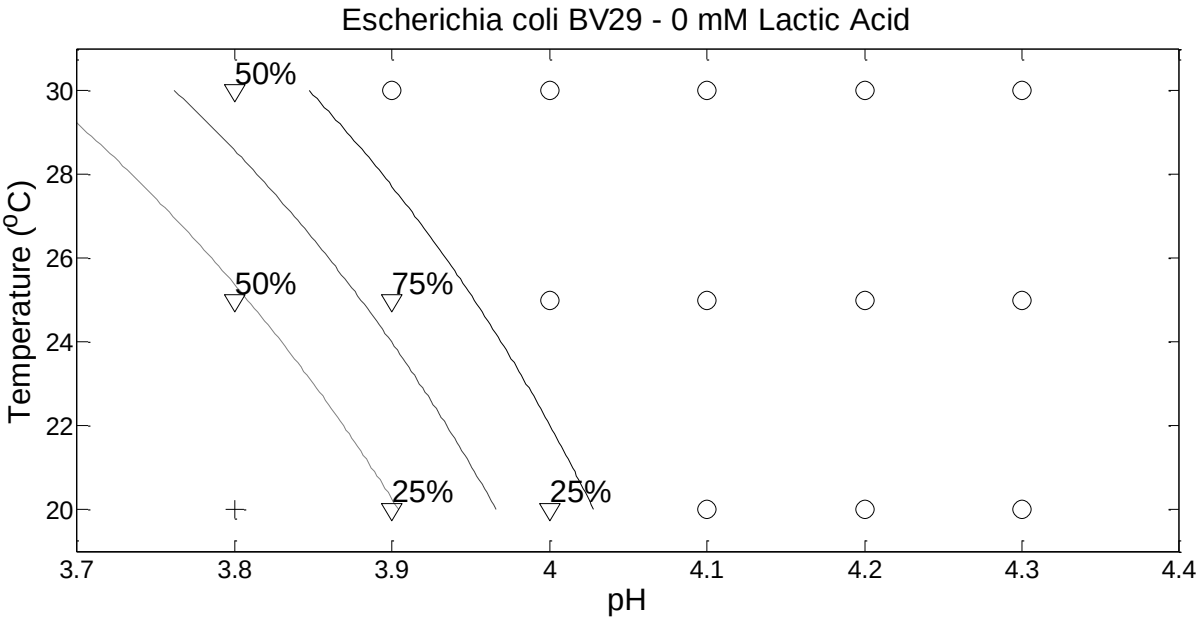
166. *E.coli* BV29 - isolated from manure

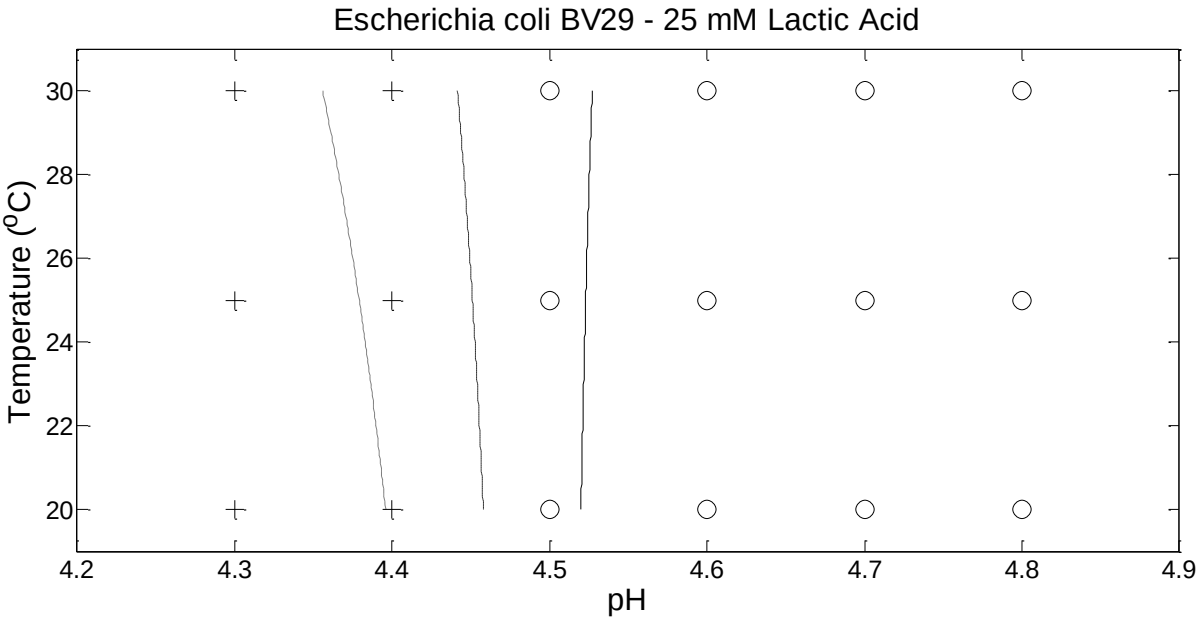
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-228.66	55.67	-4.11	0.00	-357.44	-134.66	0.00	0.00	0.00
pH	55.01	13.35	4.12	0.00	32.48	85.91	7.81E+23	1.27E+14	2.04E+37
LA	-0.70	0.15	-4.74	0.00	-1.04	-0.46	0.50	0.35	0.63
Temp	4.41	1.58	2.80	0.01	1.62	7.94	81.92	5.04	2805.98
pH:Temp	-0.98	0.37	-2.66	0.01	-1.80	-0.32	0.38	0.16	0.72

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	168.22	
pH	1	11.14	142	157.08	0.00
LA	1	90.55	141	66.53	0.00
Temp	1	10.08	140	56.46	0.00
pH:Temp	1	9.20	139	47.25	0.00

AIC	57.25
Likelihood Ratio	3.33E-25
Log-Likelihood	-23.63




Escherichia coli BV29 - 0 mM Lactic Acid
50%
50%
75%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

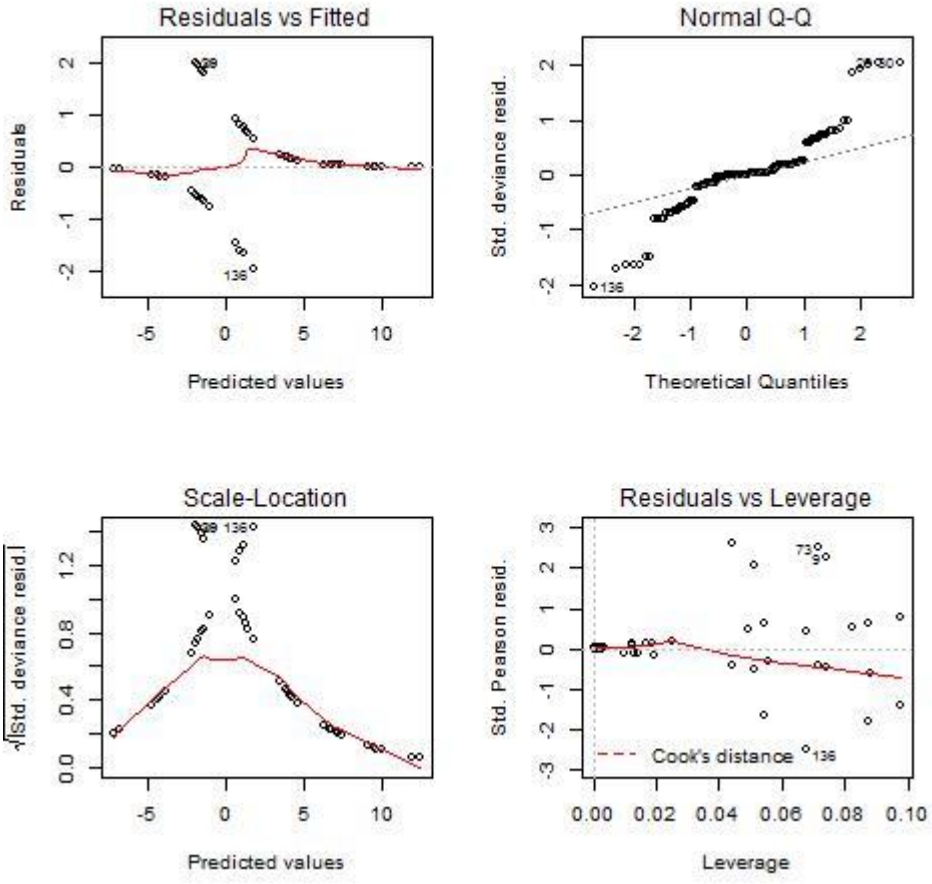

Escherichia coli BV29 - 25 mM Lactic Acid
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

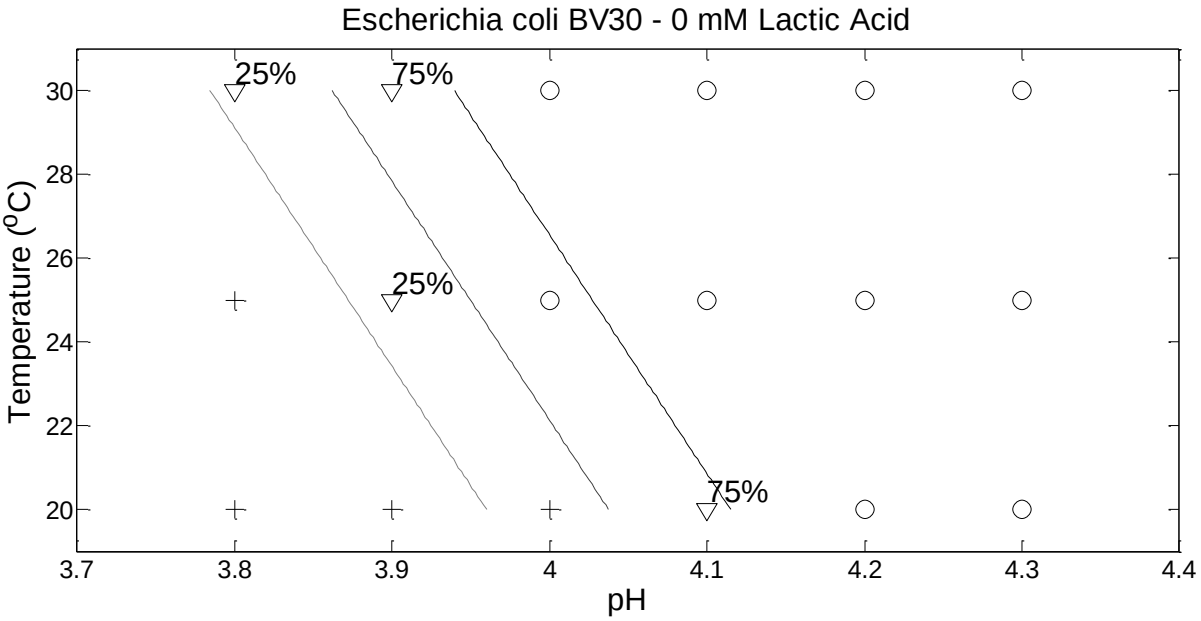
167. *E.coli* BV30 - isolated from mud

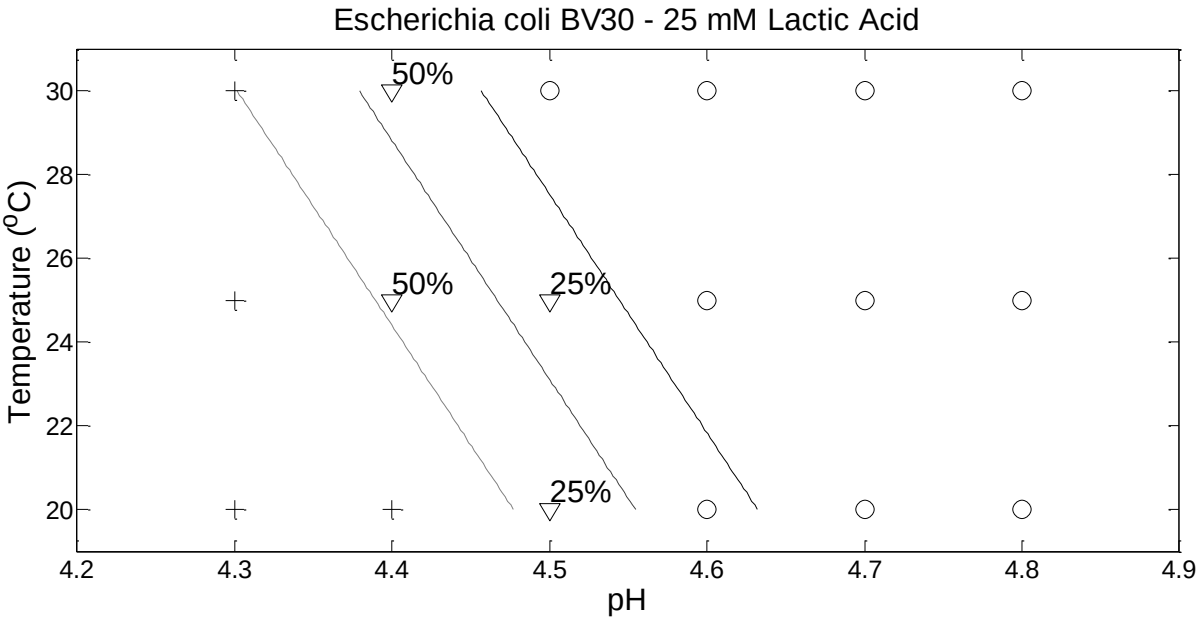
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-124.36	24.14	-5.15	0.00	-179.83	-84.24	0.00	0.00	0.00
pH	28.34	5.50	5.15	0.00	19.20	41.00	2.03E+12	2.18E+08	6.38E+17
LA	-0.59	0.12	-5.00	0.00	-0.86	-0.39	0.56	0.42	0.68
Temp	0.50	0.13	3.95	0.00	0.28	0.78	1.64	1.32	2.18

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	185.96	
pH	1	23.29	142	162.67	0.00
LA	1	80.41	141	82.26	0.00
Temp	1	27.81	140	54.45	0.00

AIC	62.45
Likelihood Ratio	2.55E-28
Log-Likelihood	-27.23




Escherichia coli BV30 - 0 mM Lactic Acid
25%
75%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

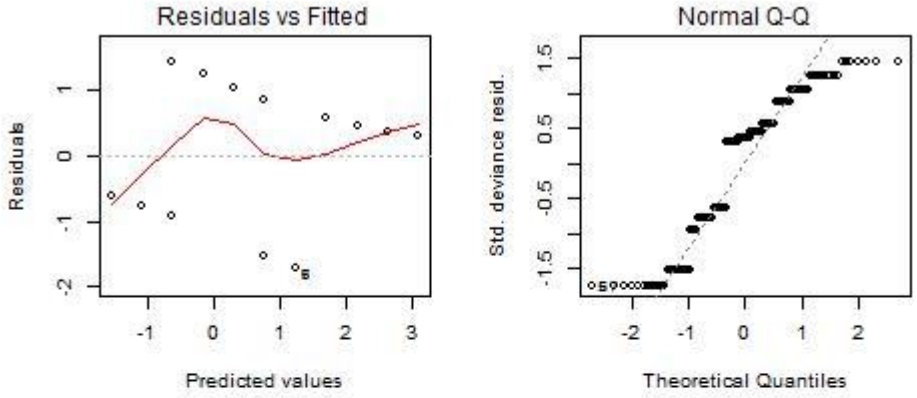

Escherichia coli BV30 - 25 mM Lactic Acid
50%
50%
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

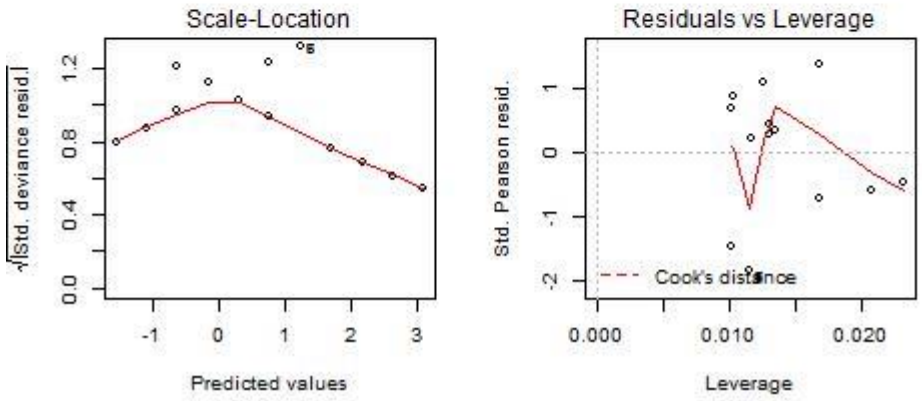
168. *E.coli* BV31 - isolated from river water

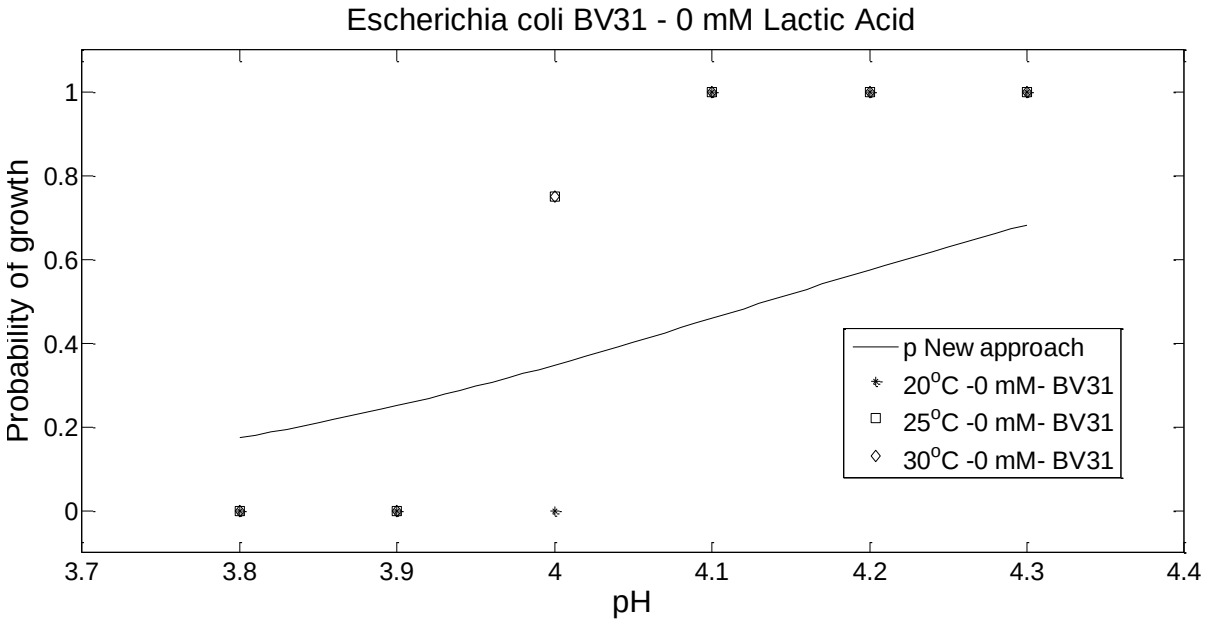
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-19.22	3.52	-5.46	0.00	-26.64	-12.75	0.00	0.00	0.00
pH	4.65	0.83	5.57	0.00	3.12	6.41	104.40	22.61	608.33

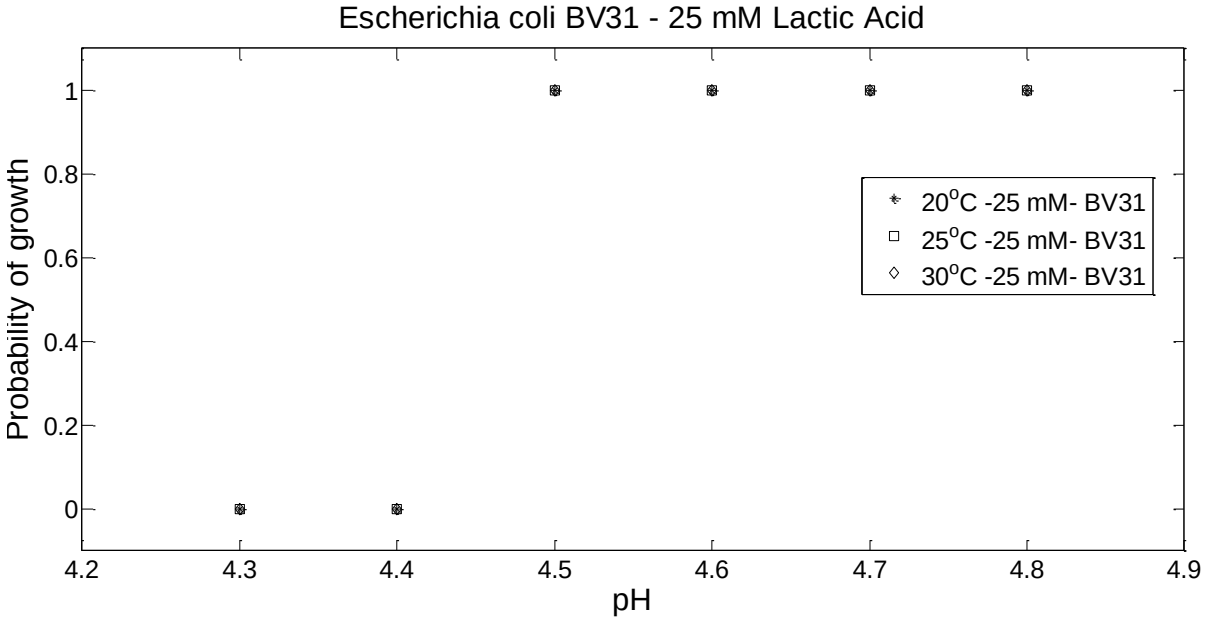
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	189.48	
pH	1	45.12	142	144.36	0.00

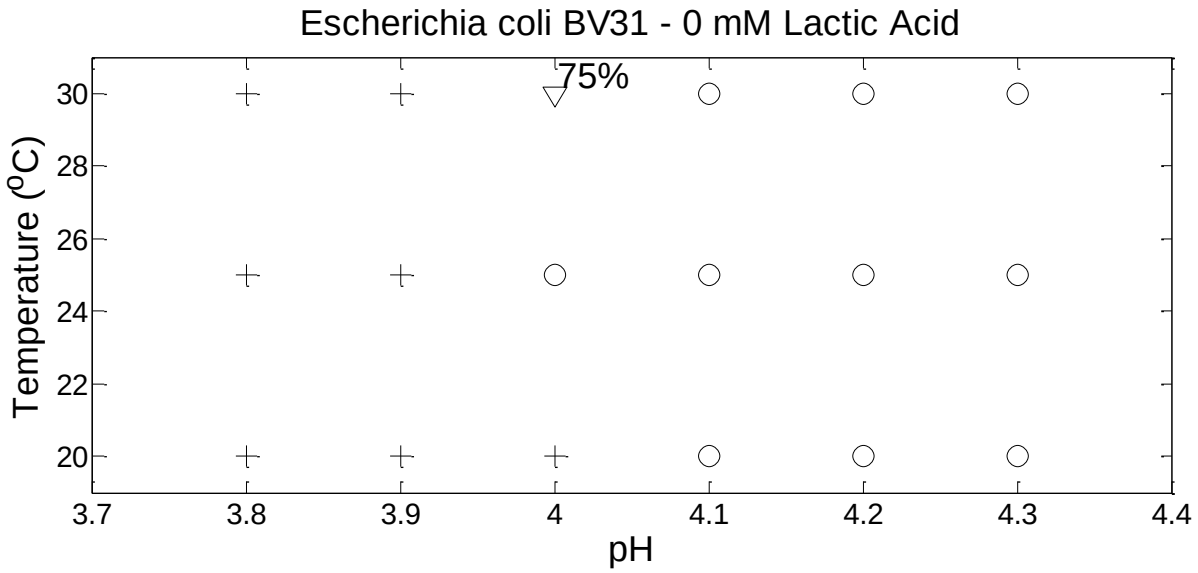
AIC	148.36
Likelihood Ratio	1.85E-11
Log-Likelihood	-72.18

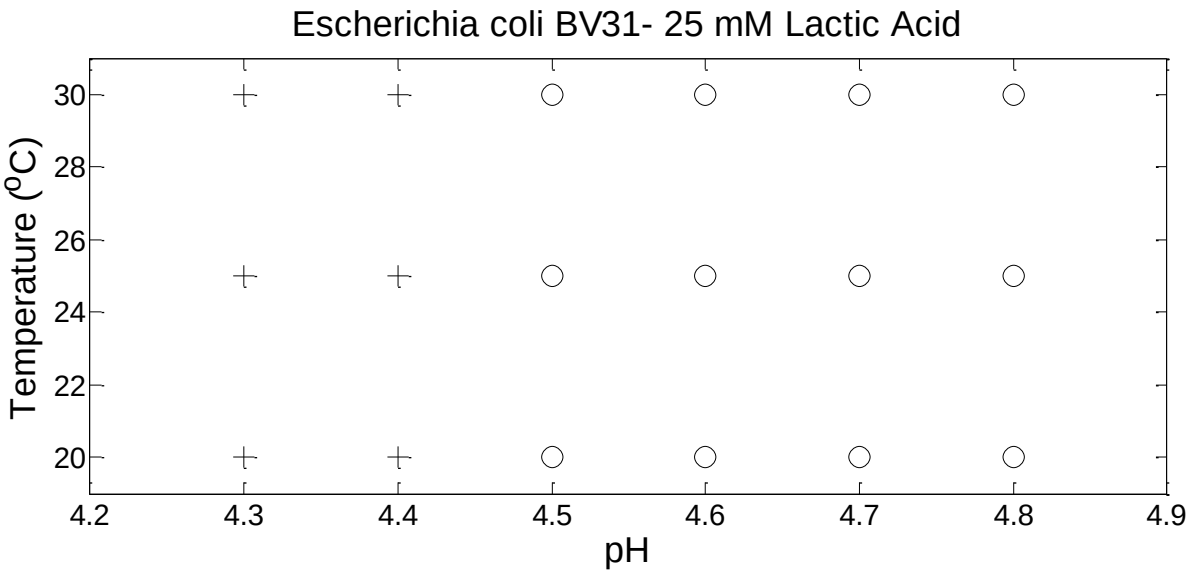





Escherichia coli BV31 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- BV31
25°C -0 mM- BV31
30°C -0 mM- BV31


Escherichia coli BV31 - 25 mM Lactic Acid
Probability of growth
pH
20°C -25 mM- BV31
25°C -25 mM- BV31
30°C -25 mM- BV31


Escherichia coli BV31 - 0 mM Lactic Acid
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

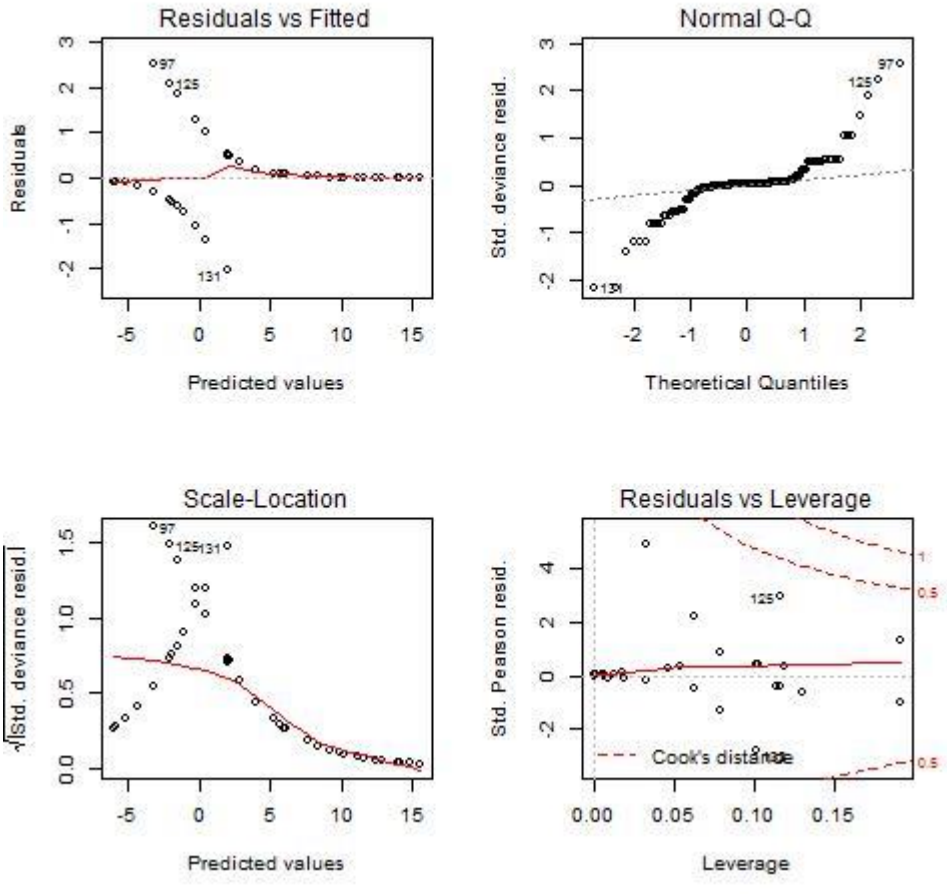

Escherichia coli BV31- 25 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

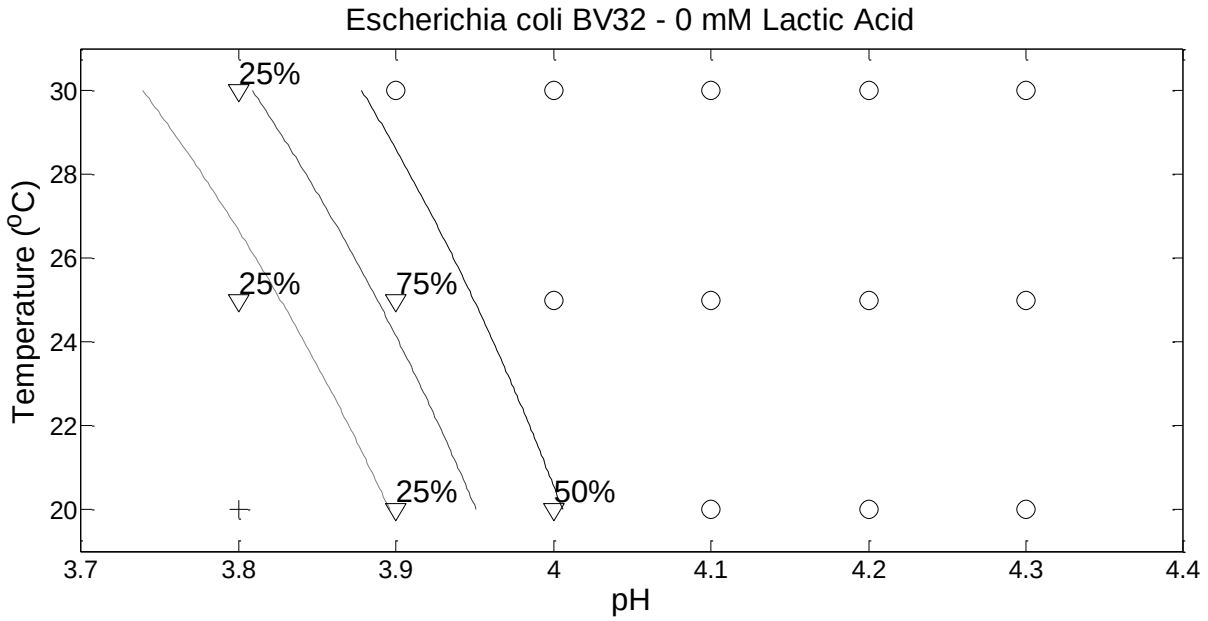
169. *E.coli* BV32 - isolated from ditch

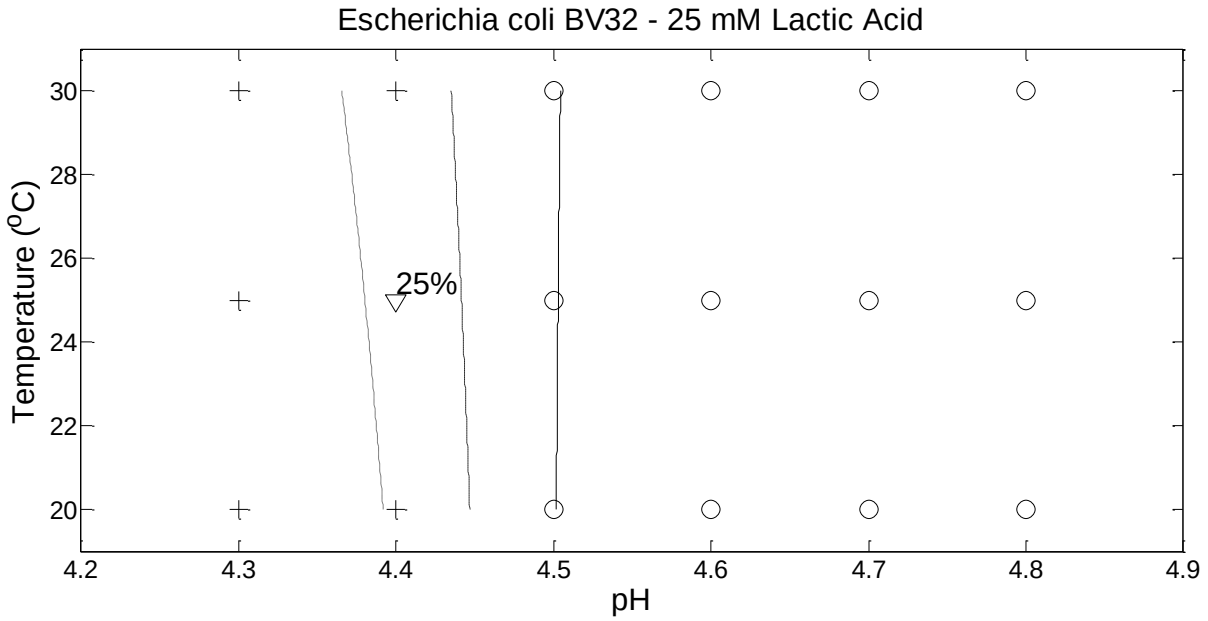
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-232.64	60.99	-3.81	0.00	-378.28	-131.27	0.00	0.00	0.00
pH	56.61	14.76	3.84	0.00	32.10	91.86	3.83E+24	8.75E+13	7.84E+39
LA	-0.79	0.17	-4.61	0.00	-1.20	-0.51	0.45	0.30	0.60
Temp	3.74	1.64	2.28	0.02	0.83	7.46	41.95	2.29	1732.31
pH:Temp	-0.83	0.39	-2.15	0.03	-1.71	-0.14	0.44	0.18	0.87

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	168.22	
pH	1	14.92	142	153.30	0.00
LA	1	98.43	141	54.87	0.00
Temp	1	6.86	140	48.00	0.01
pH:Temp	1	5.72	139	42.28	0.02

AIC	52.28
Likelihood Ratio	2.88E-26
Log-Likelihood	-21.14




Escherichia coli BV32 - 0 mM Lactic Acid
25%
25%
75%
25%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

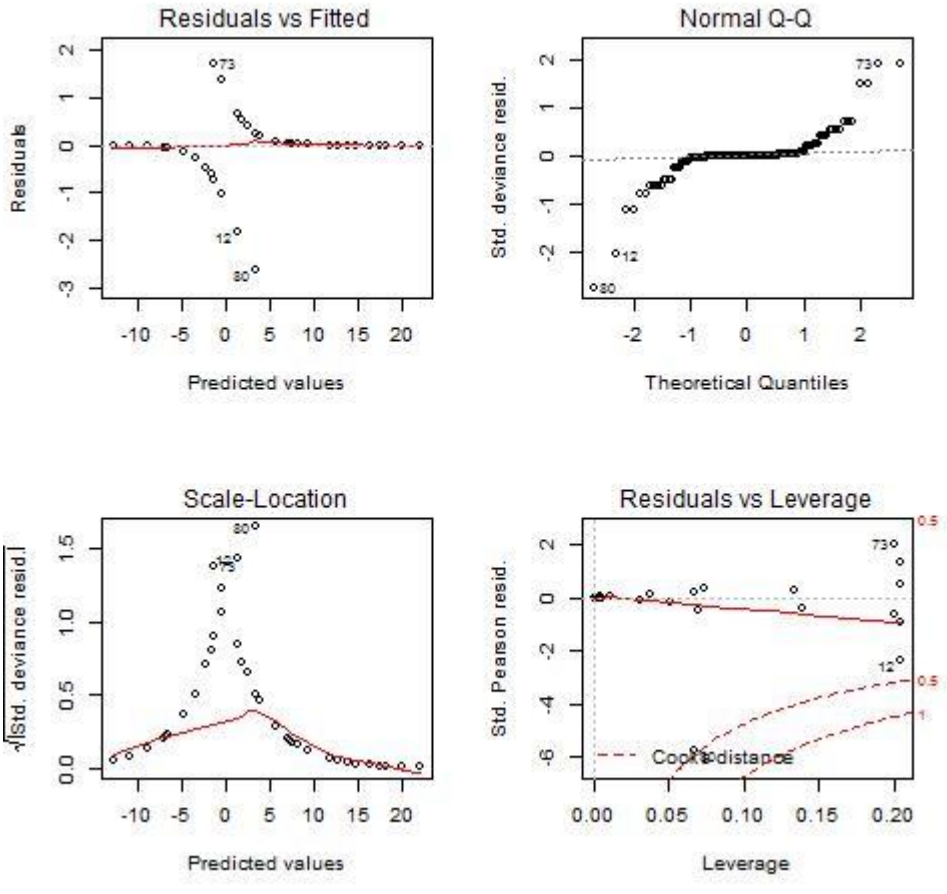

Escherichia coli BV32 - 25 mM Lactic Acid
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

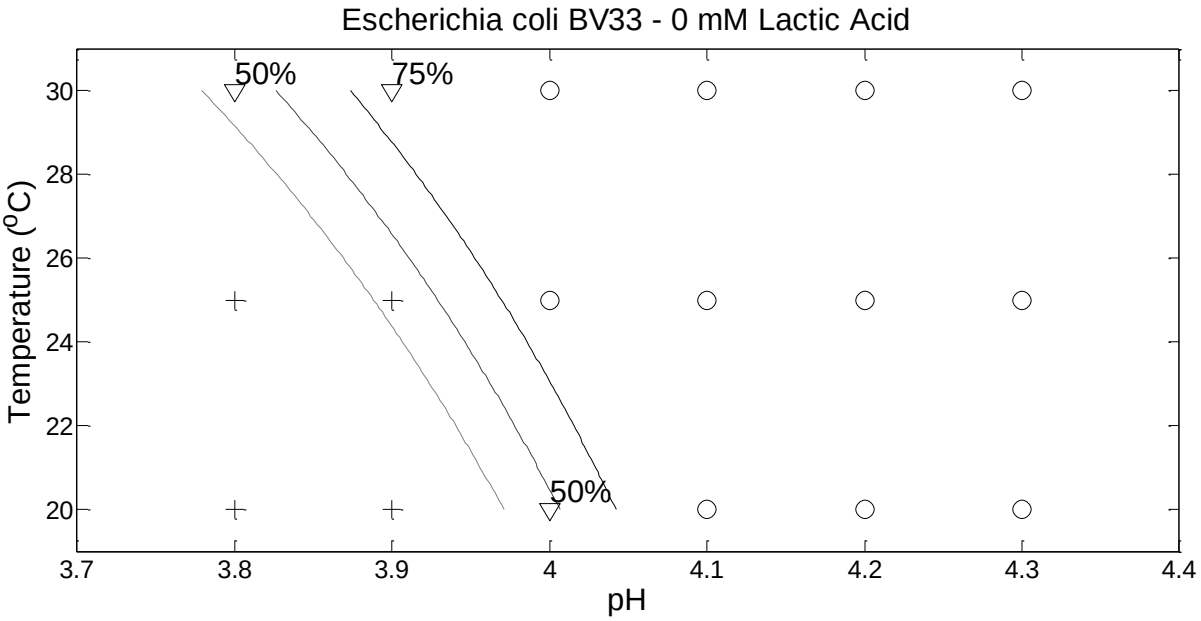
170. *E.coli* BV33 - isolated from ditch

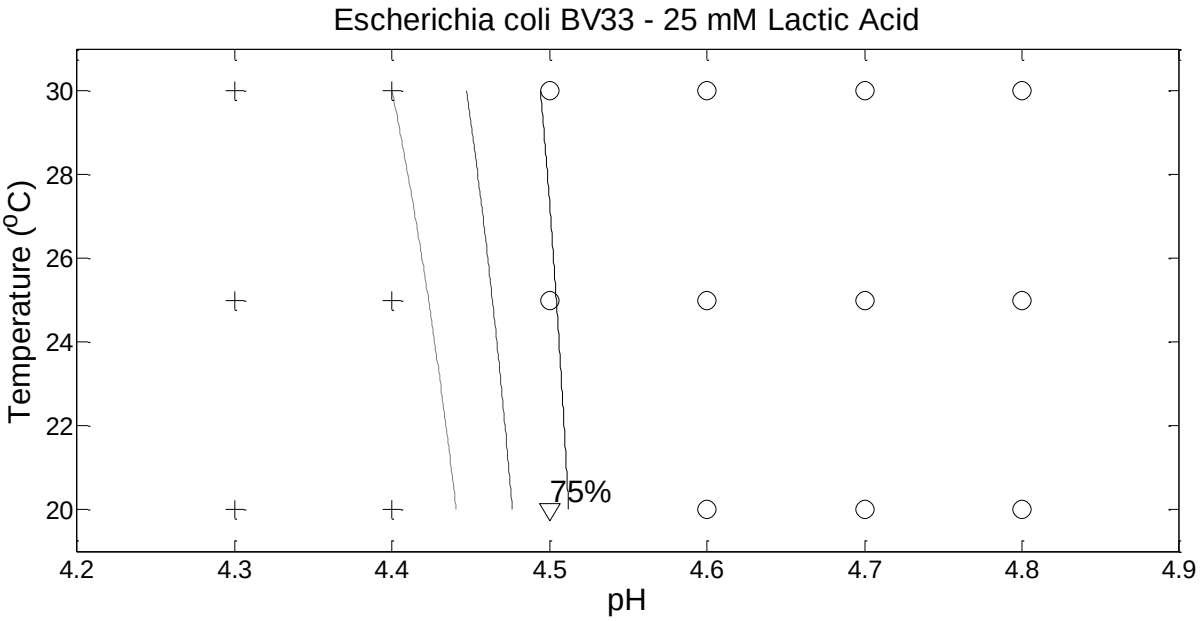
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-383.70	109.07	-3.52	0.00	-680.62	-214.71	0.00	0.00	0.00
pH	91.57	25.98	3.52	0.00	51.31	162.37	5.89E+39	1.93E+22	3.30E+70
LA	-1.16	0.33	-3.53	0.00	-2.08	-0.68	0.31	0.12	0.51
Temp	6.84	2.41	2.84	0.00	2.78	12.91	938.85	16.09	4.04E+05
pH:Temp	-1.50	0.55	-2.73	0.01	-2.86	-0.56	0.22	0.06	0.57

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	180.42	
pH	1	22.53	142	157.89	0.00
LA	1	104.08	141	53.80	0.00
Temp	1	13.51	140	40.29	0.00
pH:Temp	1	11.27	139	29.02	0.00

AIC	39.02
Likelihood Ratio	1.02E-31
Log-Likelihood	-14.51




Escherichia coli BV33 - 0 mM Lactic Acid
50%
75%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

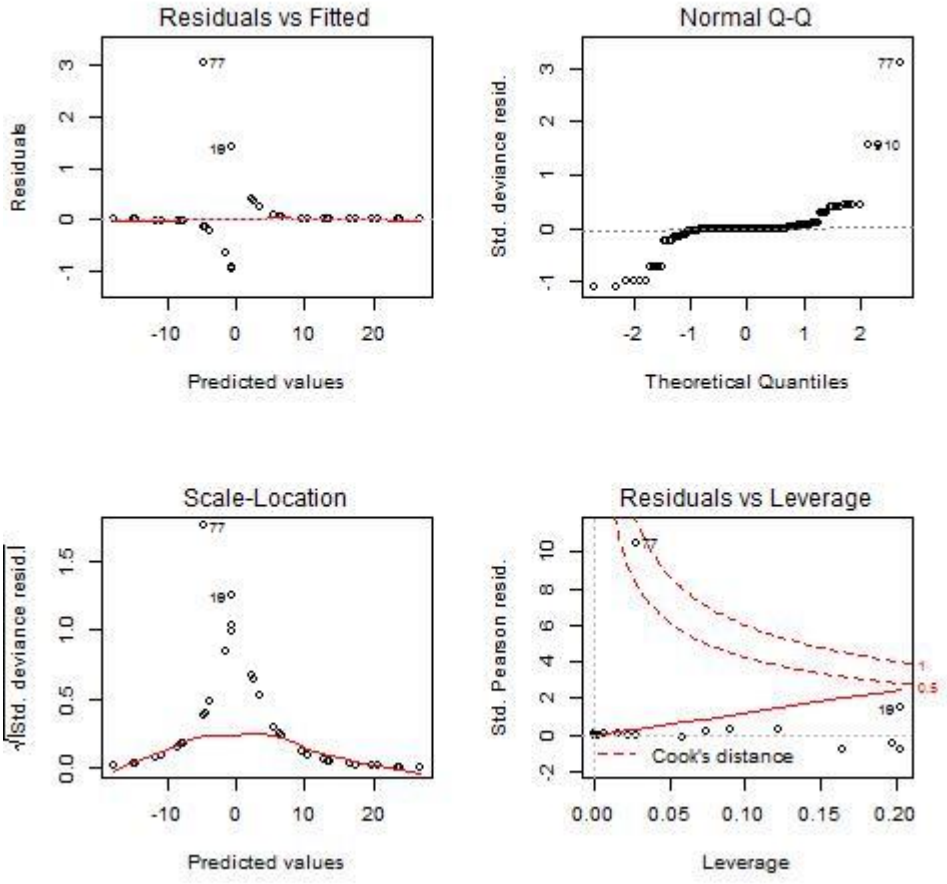

Escherichia coli BV33 - 25 mM Lactic Acid
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

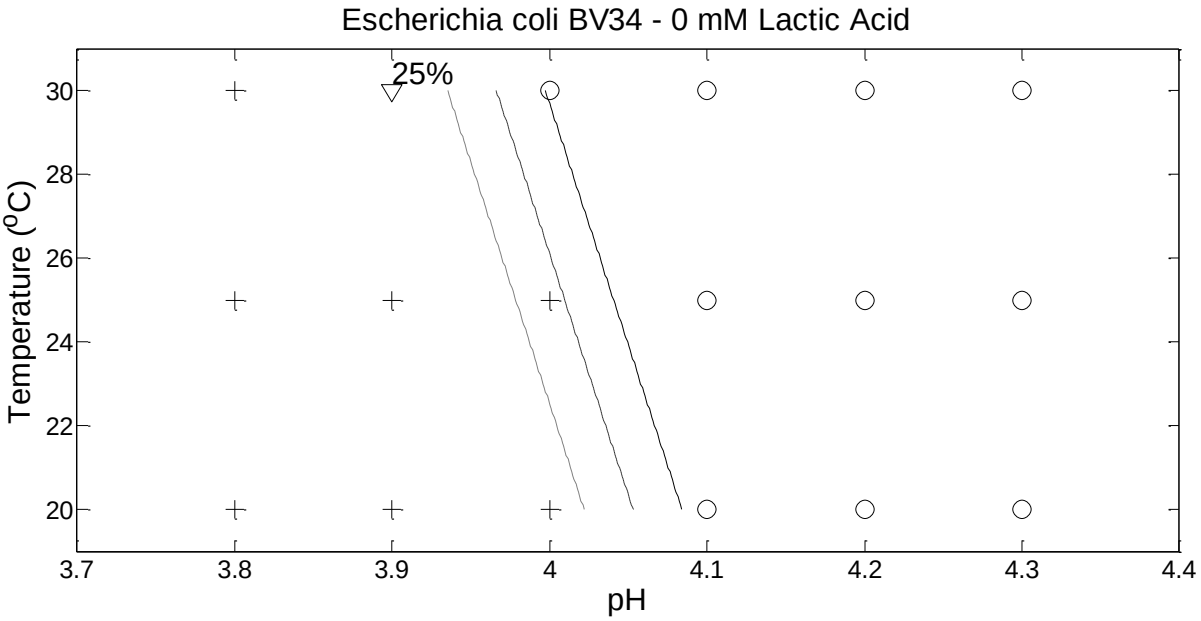
171. *E.coli* BV34 - isolated from horse feces

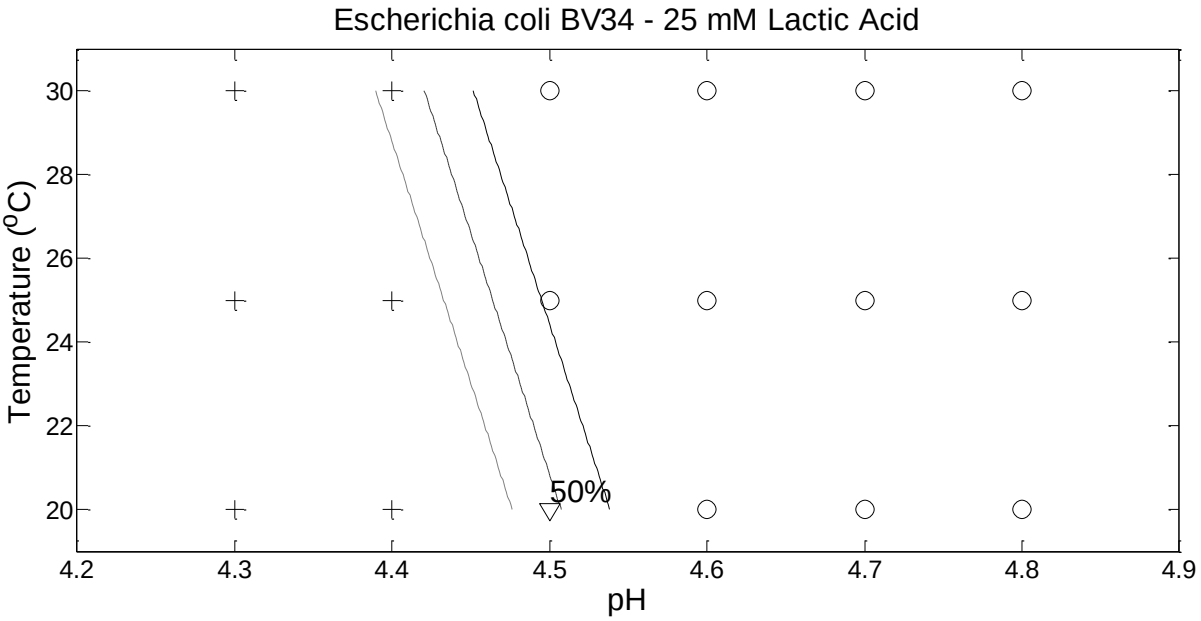
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-298.78	90.73	-3.29	0.00	-551.57	-167.57	0.00	0.00	0.00
pH	70.69	21.44	3.30	0.00	39.68	130.32	5.03E+30	1.70E+17	3.95E+56
LA	-1.28	0.39	-3.33	0.00	-2.36	-0.72	0.28	0.09	0.49
Temp	0.61	0.23	2.63	0.01	0.25	1.23	1.85	1.29	3.43

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	193.33	
pH	1	44.44	142	148.89	0.00
LA	1	111.04	141	37.84	0.00
Temp	1	15.71	140	22.14	0.00

AIC	30.14
Likelihood Ratio	7.03E-37
Log-Likelihood	-11.07




Escherichia coli BV34 - 0 mM Lactic Acid
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

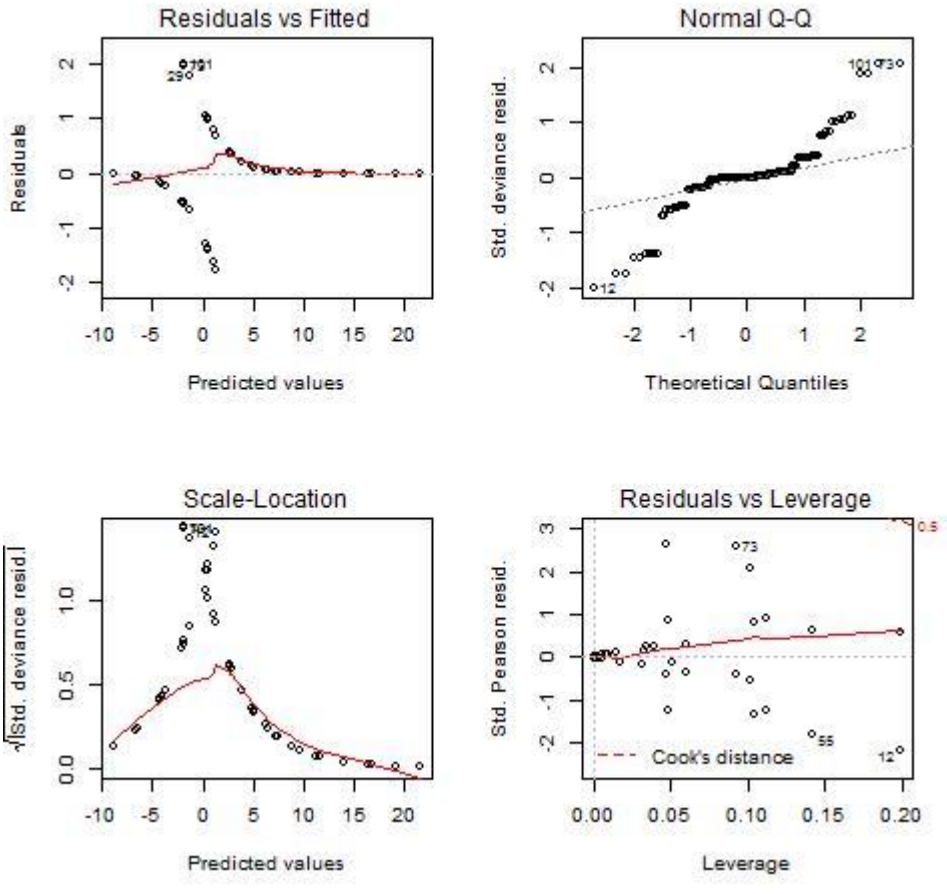

Escherichia coli BV34 - 25 mM Lactic Acid
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

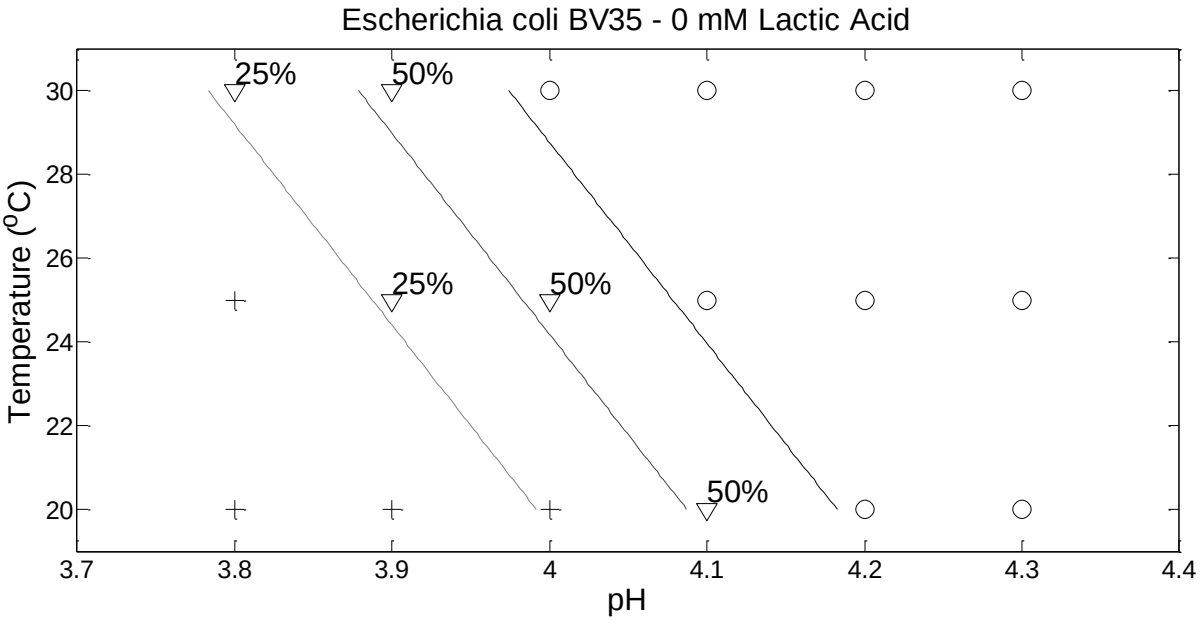
172. *E.coli* BV35 - isolated from minced meet

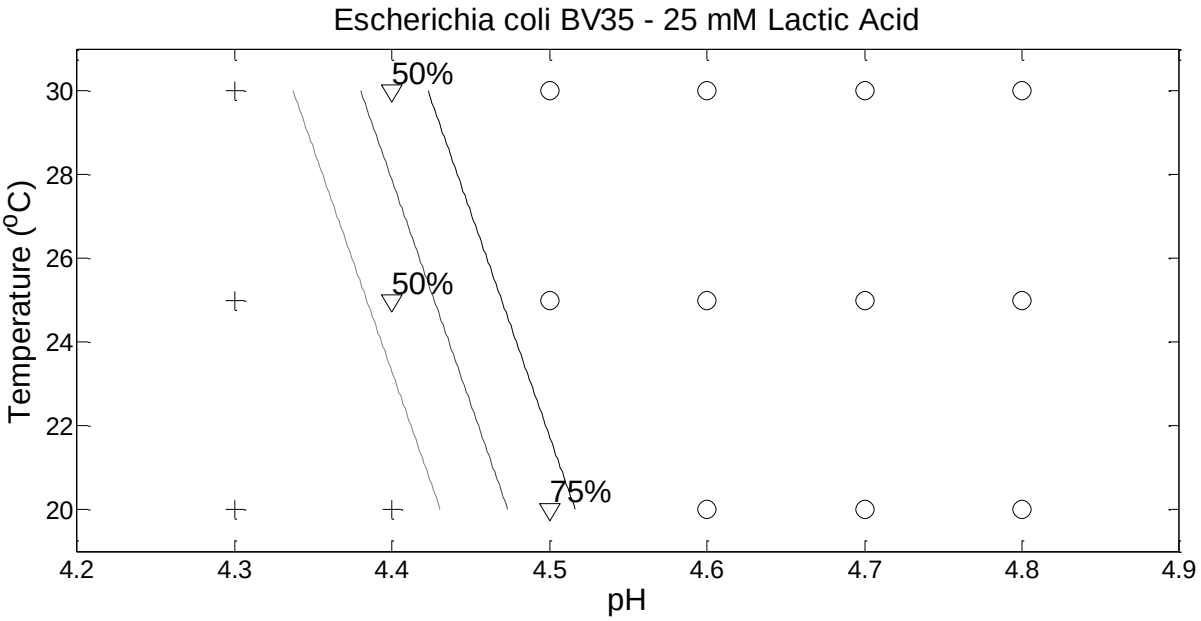
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-103.65	23.91	-4.33	0.00	-160.37	-64.55	0.00	0.00	0.00
pH	23.01	5.41	4.26	0.00	14.17	35.84	9.87E+09	1.43E+06	3.66E+15
LA	-5.42	2.44	-2.22	0.03	-11.43	-1.53	0.00	0.00	0.22
Temp	0.48	0.13	3.61	0.00	0.25	0.78	1.62	1.29	2.19
pH:LA	1.13	0.55	2.06	0.04	0.25	2.49	3.10	1.28	12.02

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	184.67	
pH	1	39.83	142	144.84	0.00
LA	1	67.95	141	76.89	0.00
Temp	1	21.11	140	55.78	0.00
pH:LA	1	6.98	139	48.80	0.01

AIC	58.80
Likelihood Ratio	2.16E-28
Log-Likelihood	-24.40




Escherichia coli BV35 - 0 mM Lactic Acid
25%
50%
25%
50%
50%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

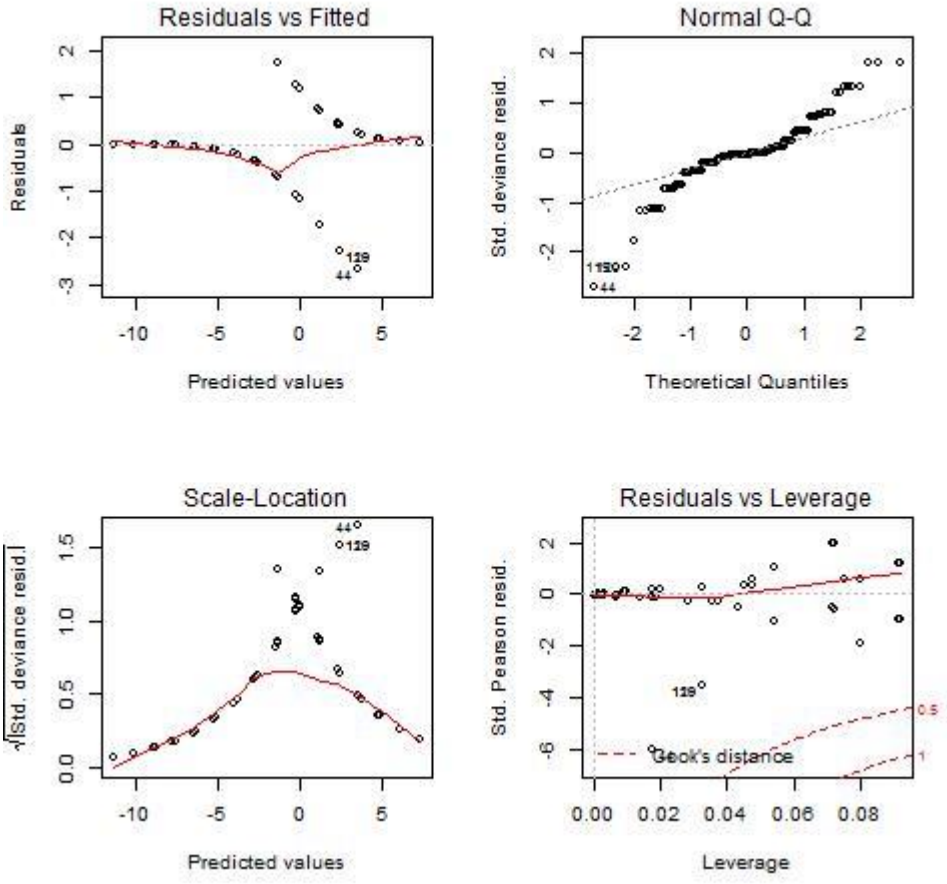

Escherichia coli BV35 - 25 mM Lactic Acid
50%
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

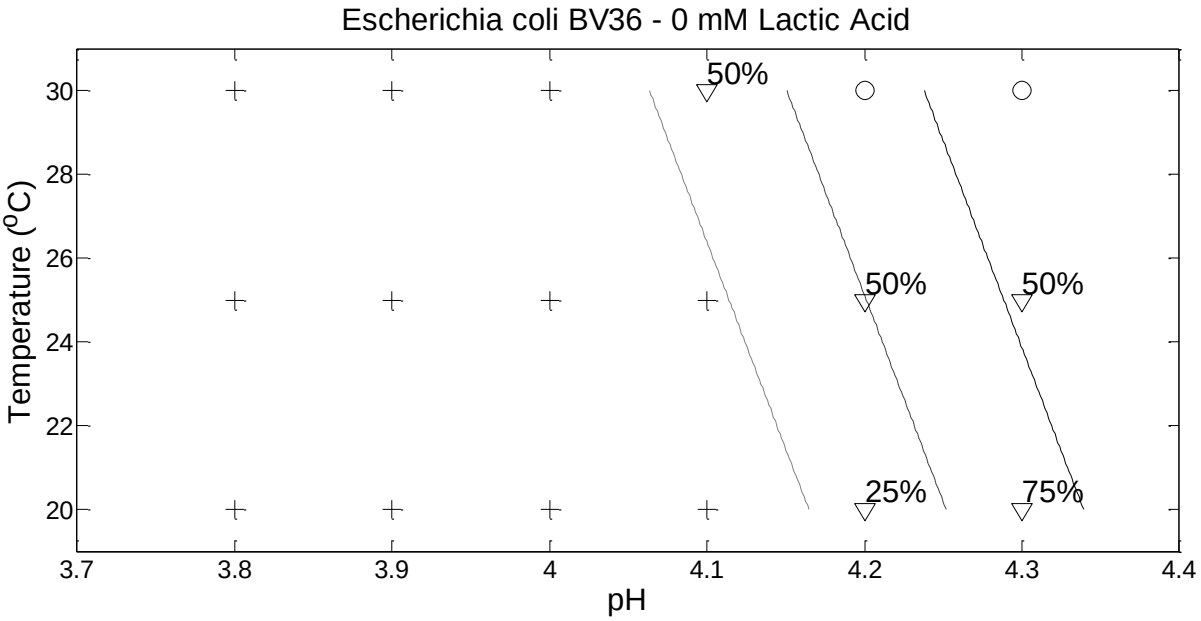
173. *E.coli* BV36 - isolated from horse feces

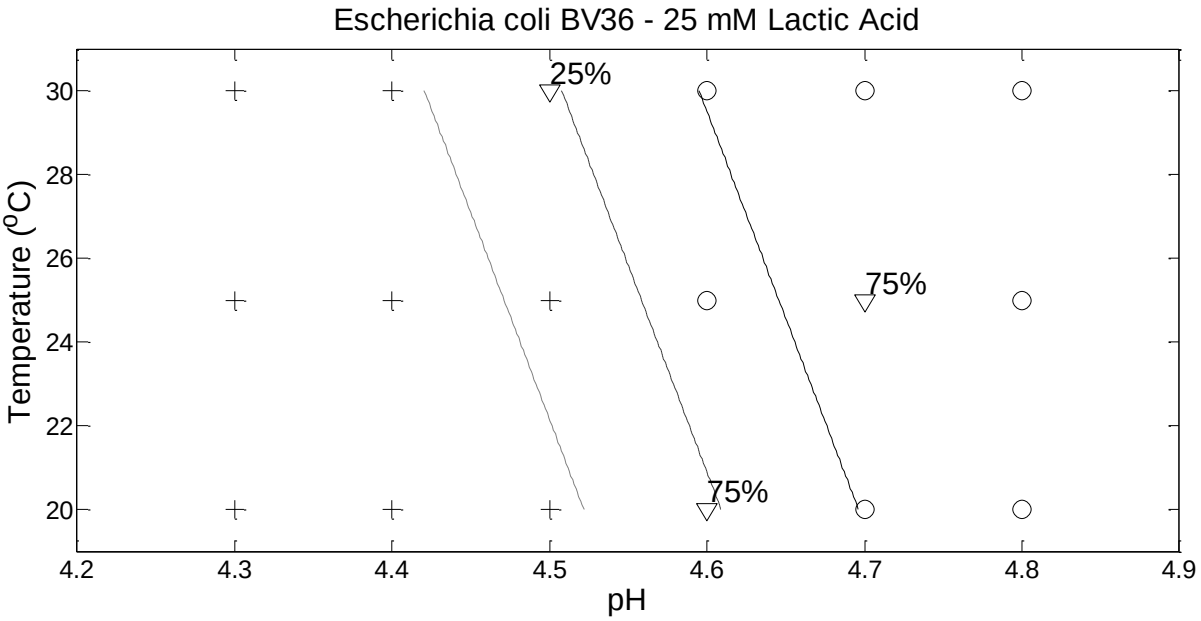
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-112.19	21.20	-5.29	0.00	-161.35	-76.94	0.00	0.00	0.00
pH	25.19	4.76	5.30	0.00	17.27	36.21	8.69E+10	3.16E+07	5.30E+15
LA	-0.36	0.07	-4.89	0.00	-0.53	-0.23	0.70	0.59	0.79
Temp	0.25	0.09	2.76	0.01	0.09	0.45	1.29	1.09	1.58

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	189.48	
pH	1	63.19	142	126.29	0.00
LA	1	55.75	141	70.54	0.00
Temp	1	9.46	140	61.08	0.00

AIC	69.08
Likelihood Ratio	1.19E-27
Log-Likelihood	-30.54




Escherichia coli BV36 - 0 mM Lactic Acid
50%
50%
50%
25%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

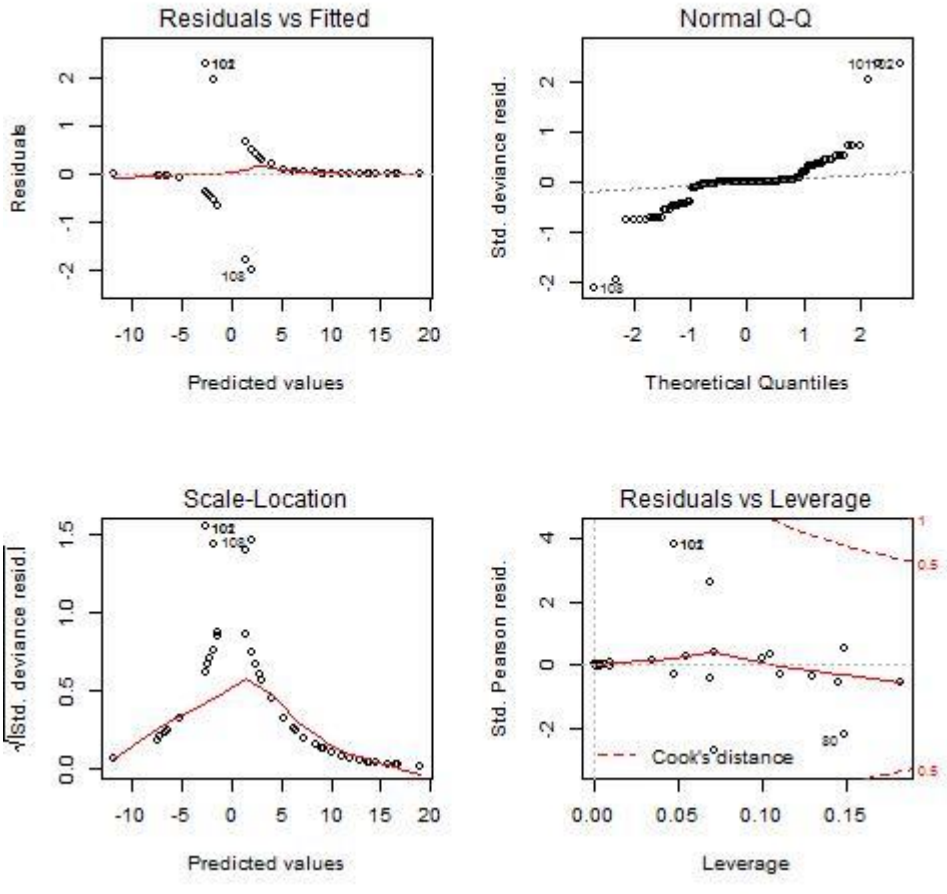

Escherichia coli BV36 - 25 mM Lactic Acid
25%
75%
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

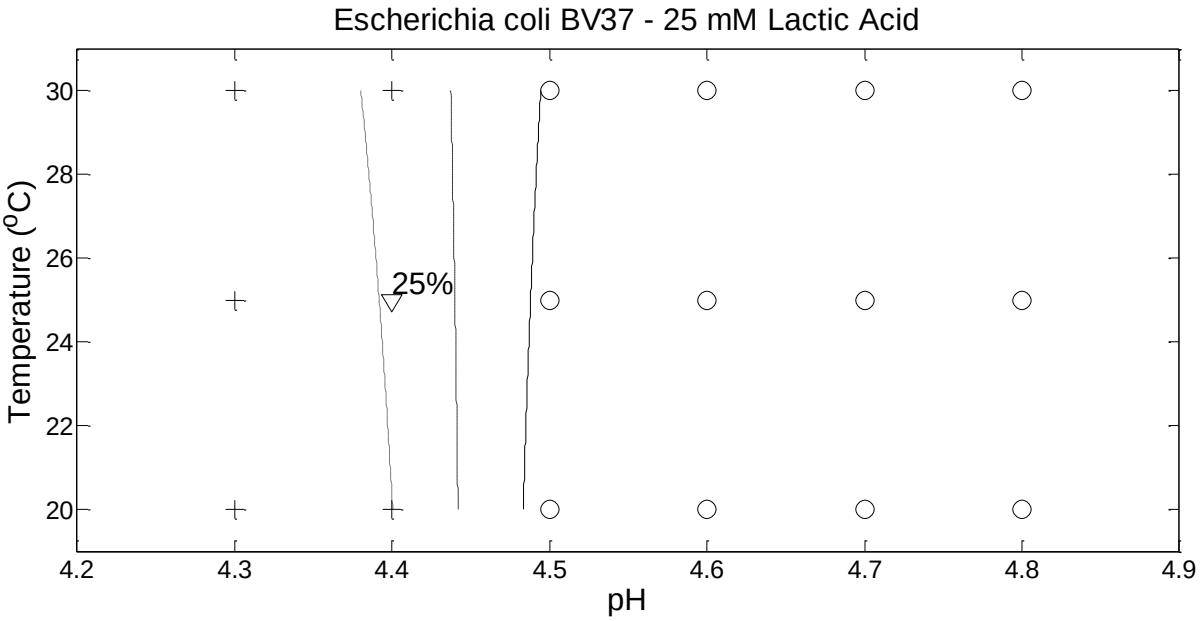
174. *E.coli* BV37 - isolated from goose feces

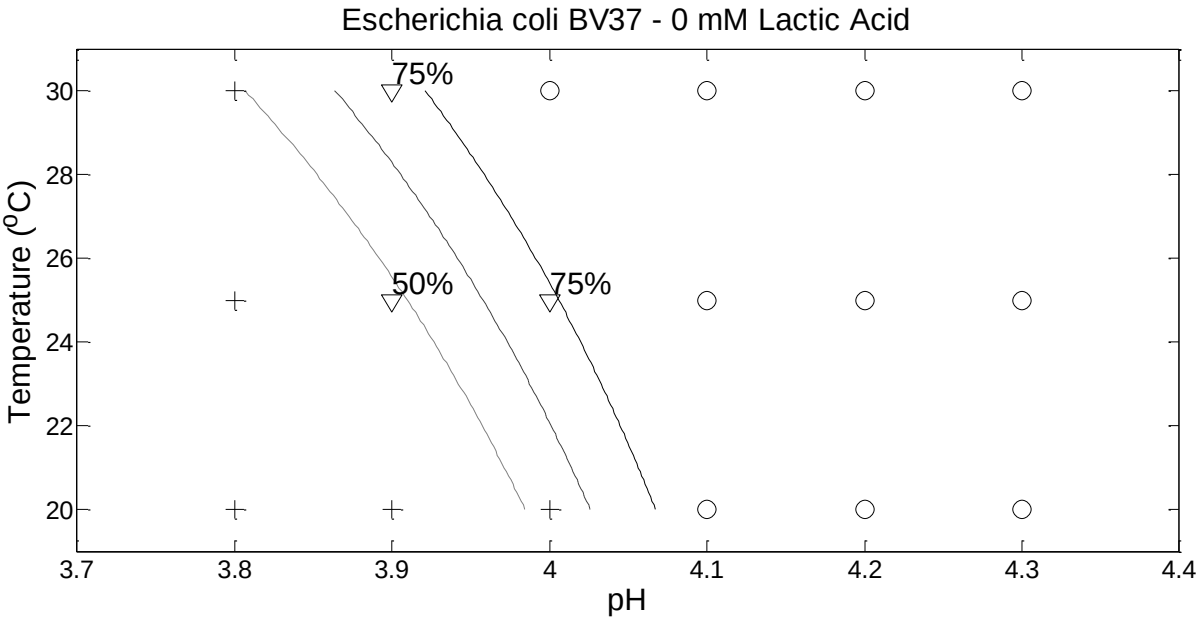
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-343.05	88.24	-3.89	0.00	-555.47	-198.19	0.00	0.00	0.00
pH	82.12	21.20	3.87	0.00	47.43	133.29	4.59E+35	3.98E+20	7.68E+57
LA	-0.88	0.20	-4.50	0.00	-1.35	-0.56	0.41	0.26	0.57
Temp	6.48	2.34	2.77	0.01	2.51	11.98	655.13	12.28	1.60E+05
pH:Temp	-1.46	0.55	-2.64	0.01	-2.75	-0.52	0.23	0.06	0.60

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	181.90	
pH	1	31.78	142	150.12	0.00
LA	1	96.97	141	53.14	0.00
Temp	1	10.28	140	42.86	0.00
pH:Temp	1	10.54	139	32.32	0.00

AIC	42.32
Likelihood Ratio	2.51E-31
Log-Likelihood	-16.16




Escherichia coli BV37 - 25 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
25%
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

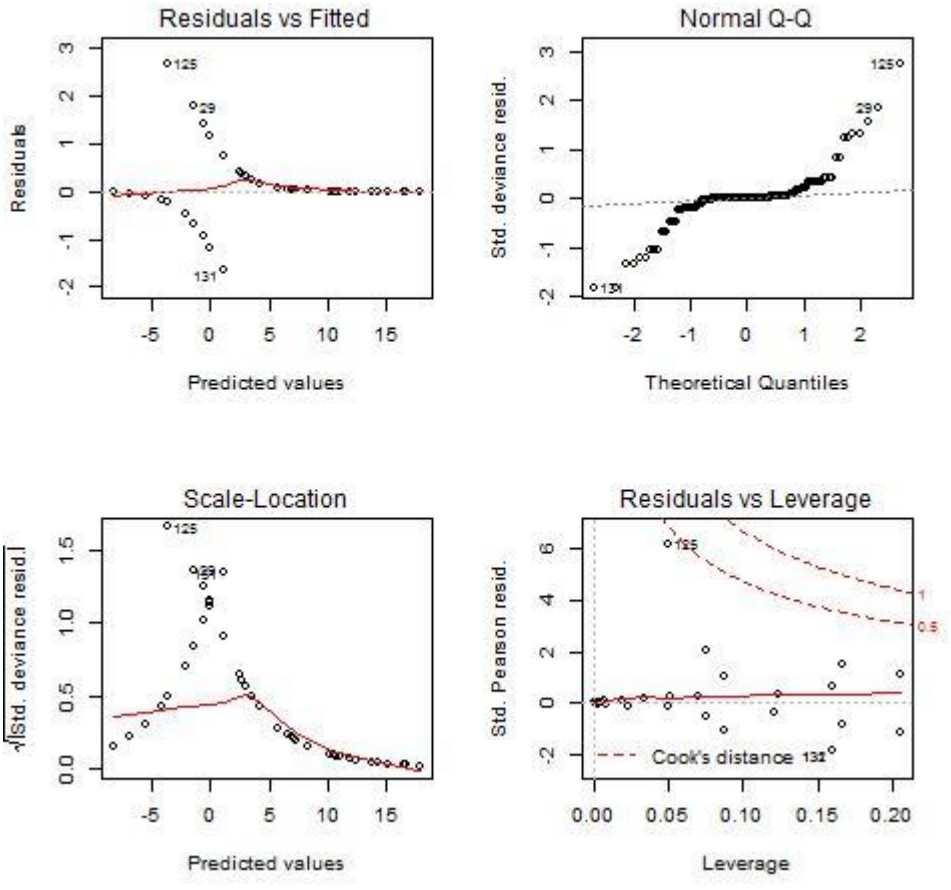

Escherichia coli BV37 - 0 mM Lactic Acid
Temperature (°C)
30
28
26
24
22
20
75%
50%
75%
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

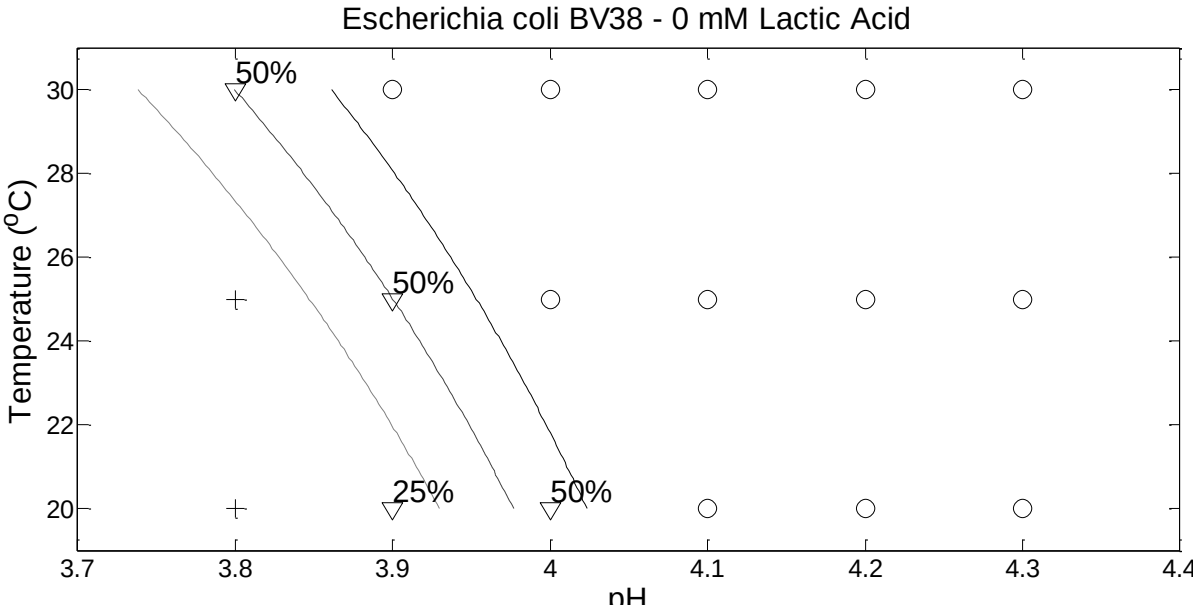
175. *E.coli* BV38 - isolated from rabbit feces

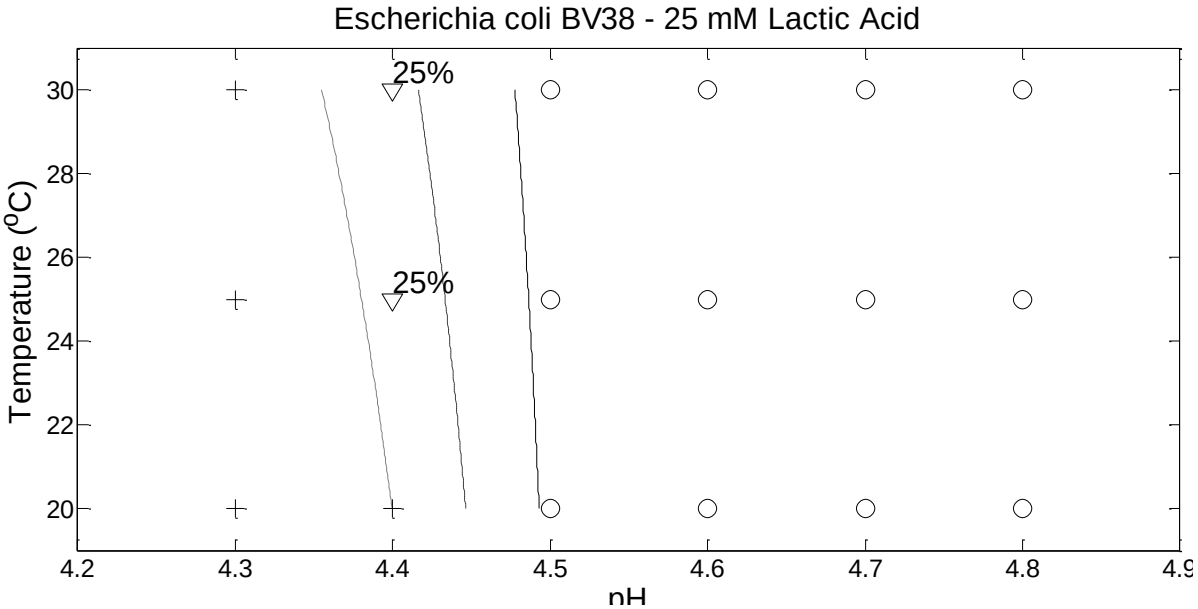
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-288.72	81.69	-3.53	0.00	-500.80	-160.28	0.00	0.00	0.00
pH	69.42	19.61	3.54	0.00	38.61	120.41	1.40E+30	5.87E+16	1.97E+52
LA	-0.88	0.21	-4.13	0.00	-1.43	-0.55	0.41	0.24	0.58
Temp	5.09	2.04	2.50	0.01	1.64	10.05	162.21	5.15	2.31E+04
pH:Temp	-1.12	0.48	-2.36	0.02	-2.27	-0.31	0.33	0.10	0.73

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	168.22	
pH	1	17.61	142	150.61	0.00
LA	1	93.00	141	57.61	0.00
Temp	1	12.09	140	45.52	0.00
pH:Temp	1	8.00	139	37.53	0.00

AIC	47.53
Likelihood Ratio	2.77E-27
Log-Likelihood	-18.76




Escherichia coli BV38 - 0 mM Lactic Acid
50%
50%
25%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

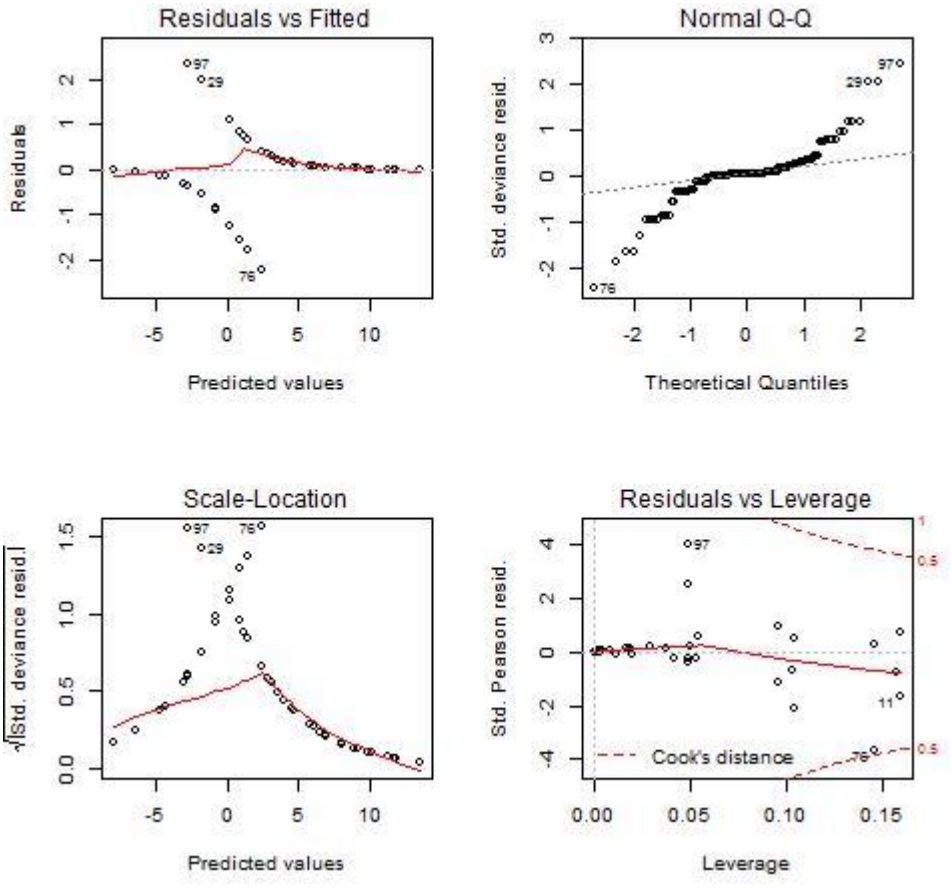

Escherichia coli BV38 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
pH

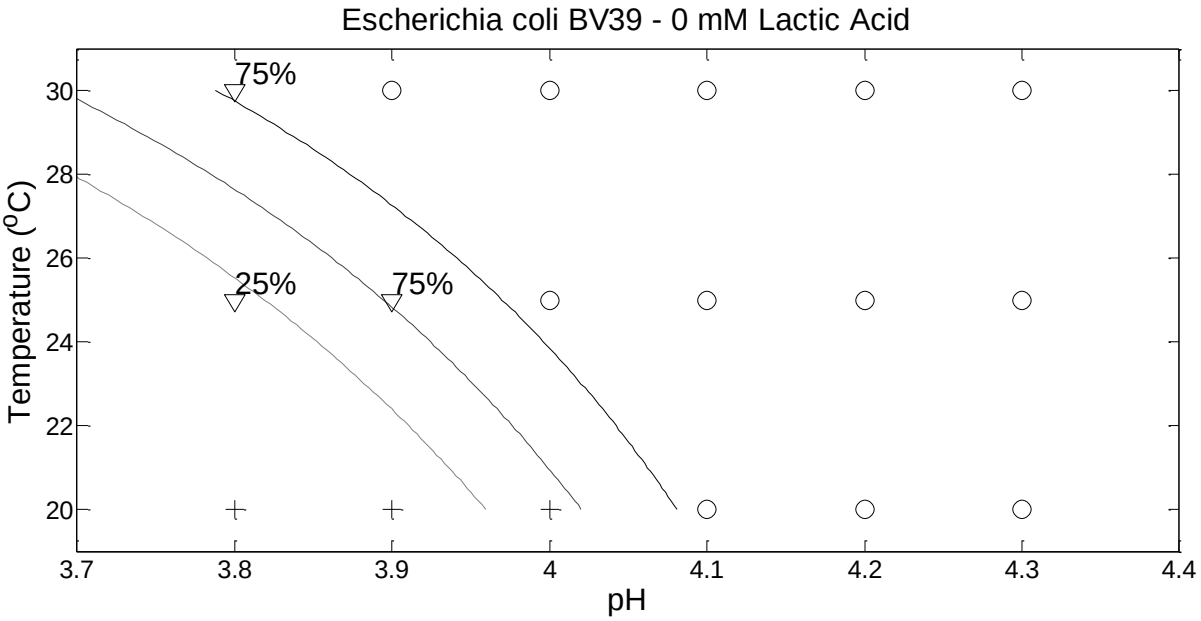
176. *E.coli* BV39 - isolated from rabbit feces

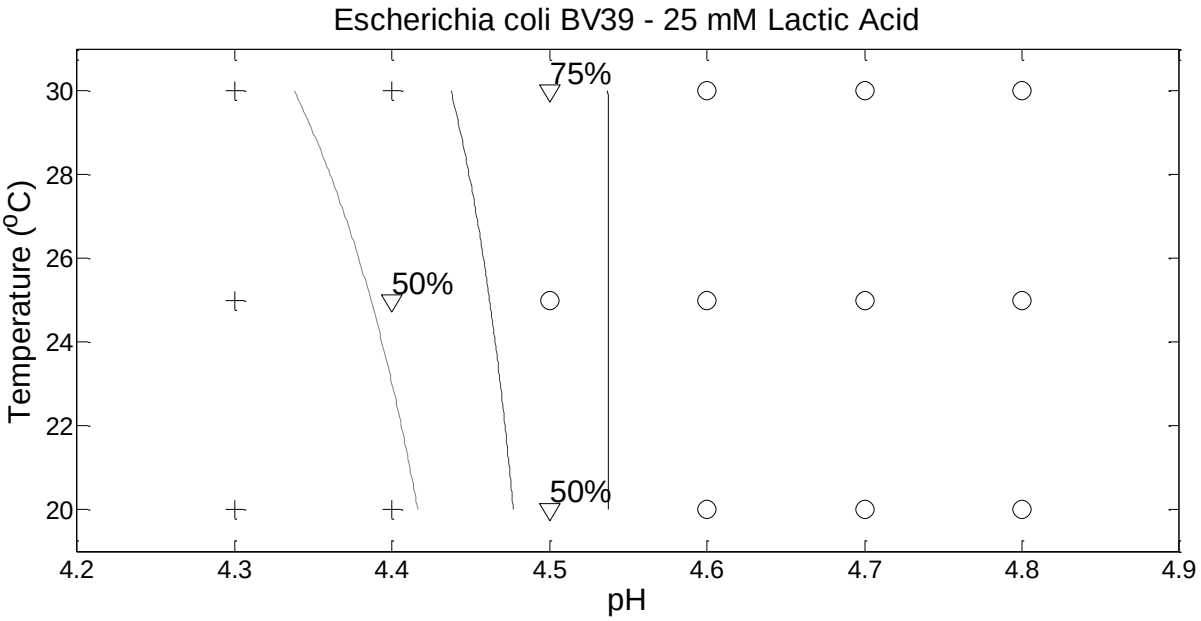
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-273.52	64.84	-4.22	0.00	-425.59	-165.49	0.00	0.00	0.00
pH	64.40	15.25	4.22	0.00	38.94	100.03	9.27E+27	8.17E+16	2.78E+43
LA	-0.66	0.14	-4.64	0.00	-1.01	-0.43	0.52	0.37	0.65
Temp	6.40	1.97	3.25	0.00	3.09	11.13	604.09	21.91	6.81E+04
pH:Temp	-1.41	0.45	-3.13	0.00	-2.48	-0.65	0.24	0.08	0.52

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	173.85	
pH	1	11.89	142	161.96	0.00
LA	1	80.02	141	81.94	0.00
Temp	1	19.04	140	62.90	0.00
pH:Temp	1	16.07	139	46.83	0.00

AIC	56.83
Likelihood Ratio	1.69E-26
Log-Likelihood	-23.41




Escherichia coli BV39 - 0 mM Lactic Acid
75%
25%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

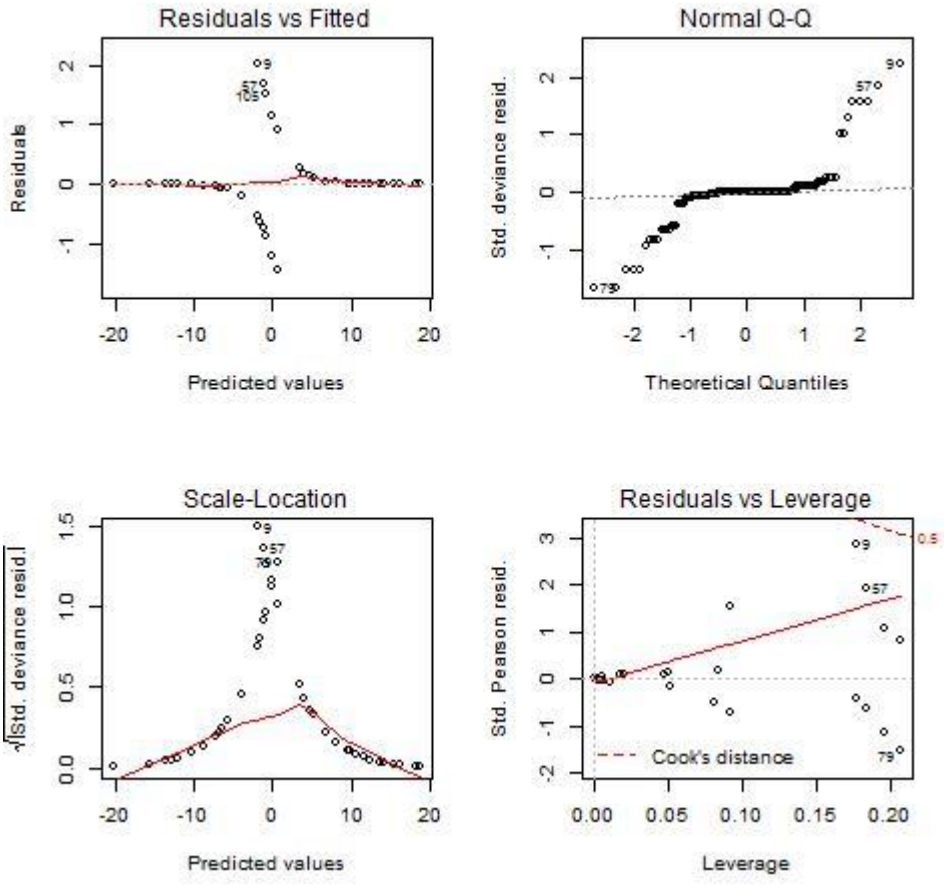

Escherichia coli BV39 - 25 mM Lactic Acid
75%
50%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

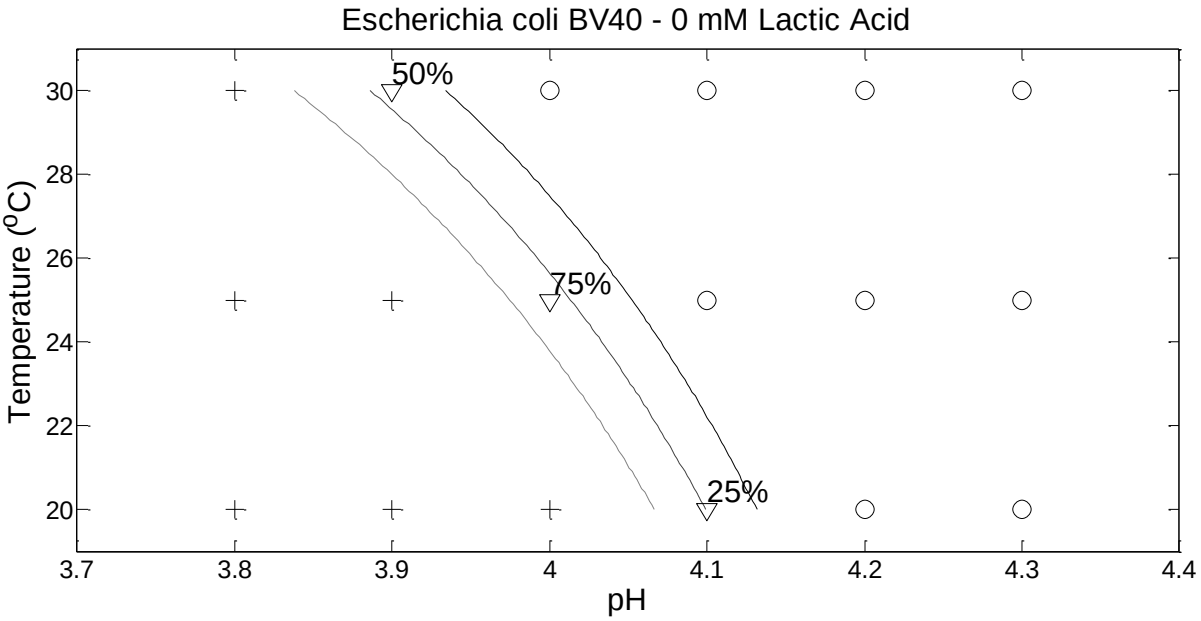
177. *E.coli* BV40 - isolated from horse feces

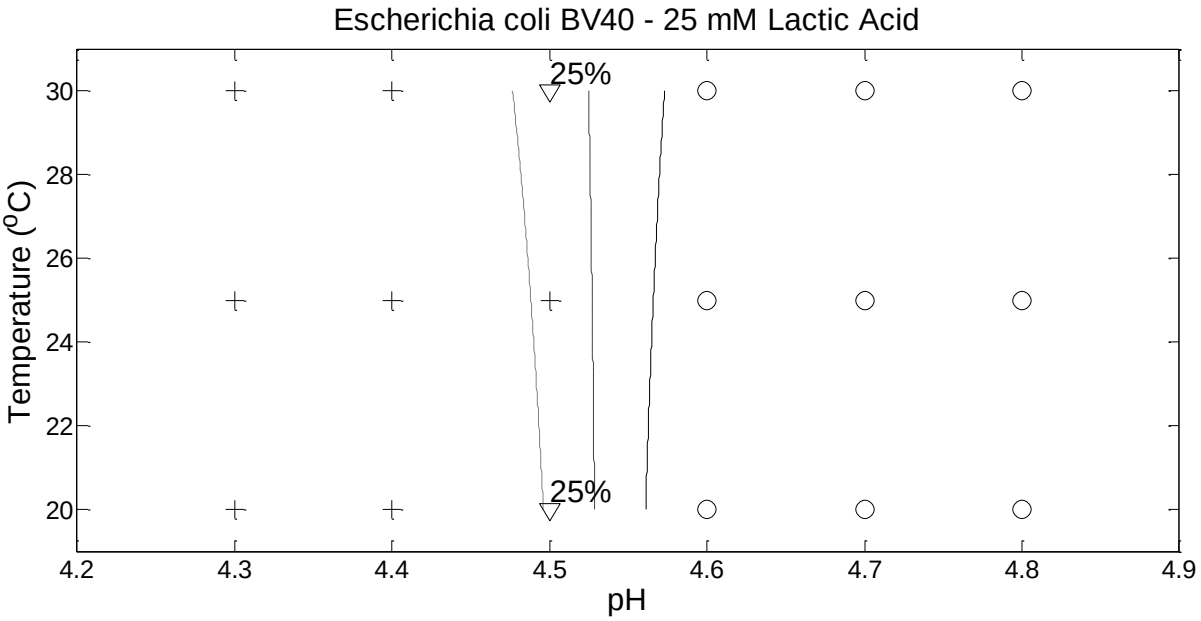
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-478.37	162.04	-2.95	0.00	-973.38	-253.34	0.00	0.00	0.00
pH	111.98	38.09	2.94	0.00	59.20	228.27	4.27E+48	5.12E+25	1.37E+99
LA	-1.16	0.36	-3.26	0.00	-2.28	-0.67	0.31	0.10	0.51
Temp	10.06	3.81	2.64	0.01	4.47	20.91	2.33E+04	87.73	1.20E+09
pH:Temp	-2.22	0.86	-2.57	0.01	-4.64	-0.95	0.11	0.01	0.39

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	197.84	
pH	1	25.83	142	172.01	0.00
LA	1	108.80	141	63.22	0.00
Temp	1	14.20	140	49.01	0.00
pH:Temp	1	17.98	139	31.04	0.00

AIC	41.04
Likelihood Ratio	5.07E-35
Log-Likelihood	-15.52




Escherichia coli BV40 - 0 mM Lactic Acid
50%
75%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

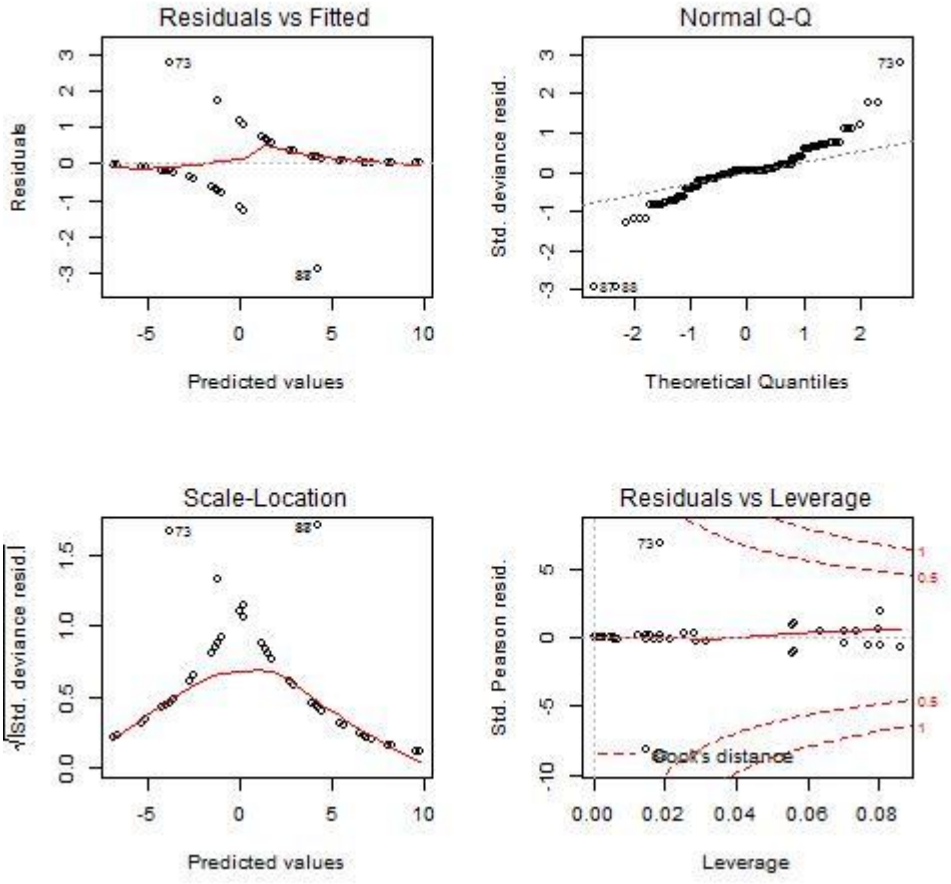

Escherichia coli BV40 - 25 mM Lactic Acid
25%
25%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

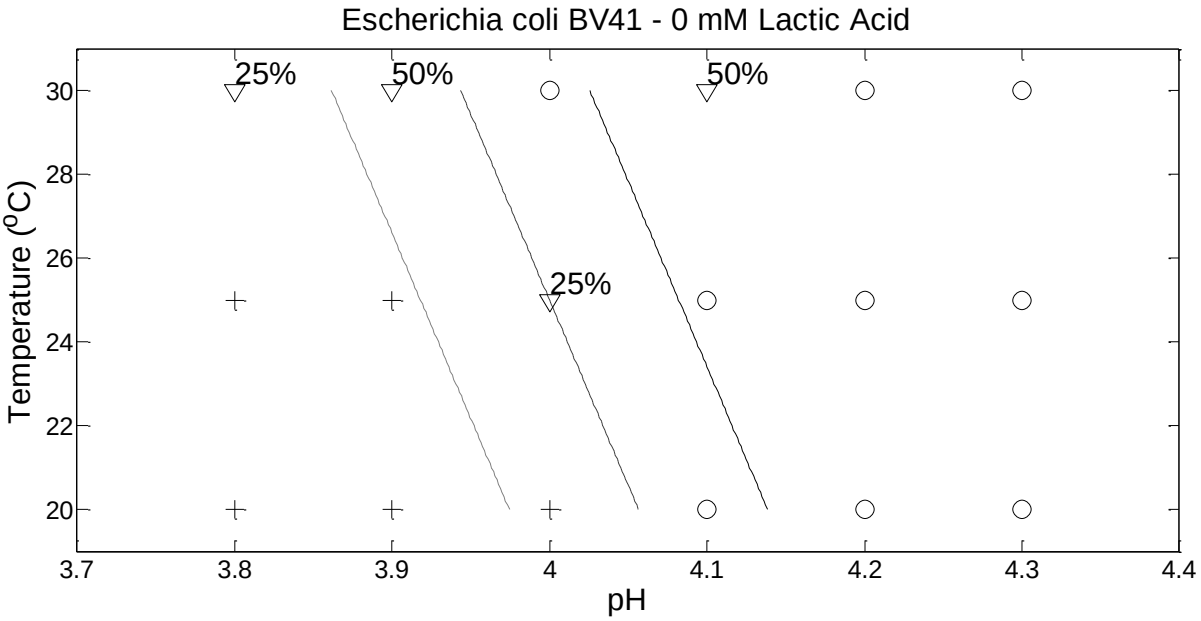
178. *E.coli* BV41 - isolated from horse feces

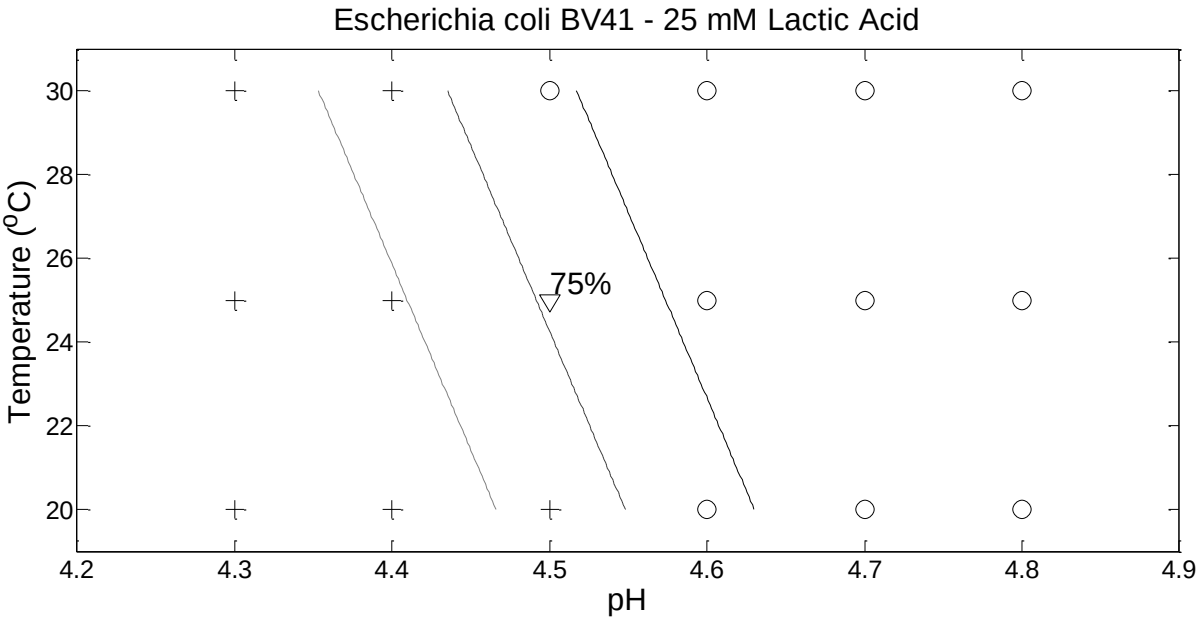
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-114.73	21.49	-5.34	0.00	-164.68	-79.11	0.00	0.00	0.00
pH	26.79	4.99	5.37	0.00	18.51	38.38	4.33E+11	1.09E+08	4.65E+16
LA	-0.53	0.10	-5.18	0.00	-0.76	-0.36	0.59	0.47	0.70
Temp	0.30	0.10	3.02	0.00	0.12	0.52	1.35	1.13	1.69

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	194.91	
pH	1	32.58	142	162.33	0.00
LA	1	91.52	141	70.81	0.00
Temp	1	12.28	140	58.53	0.00

AIC	66.53
Likelihood Ratio	2.28E-29
Log-Likelihood	-29.26




Escherichia coli BV41 - 0 mM Lactic Acid
25%
50%
50%
25%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

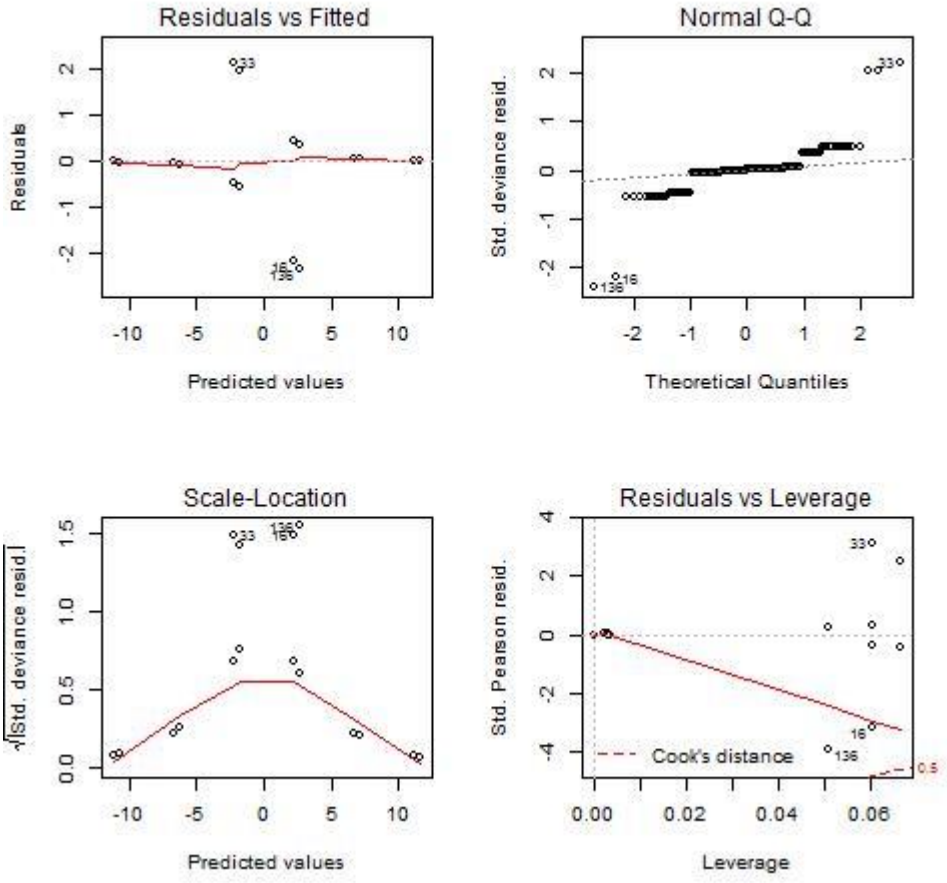

Escherichia coli BV41 - 25 mM Lactic Acid
75%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

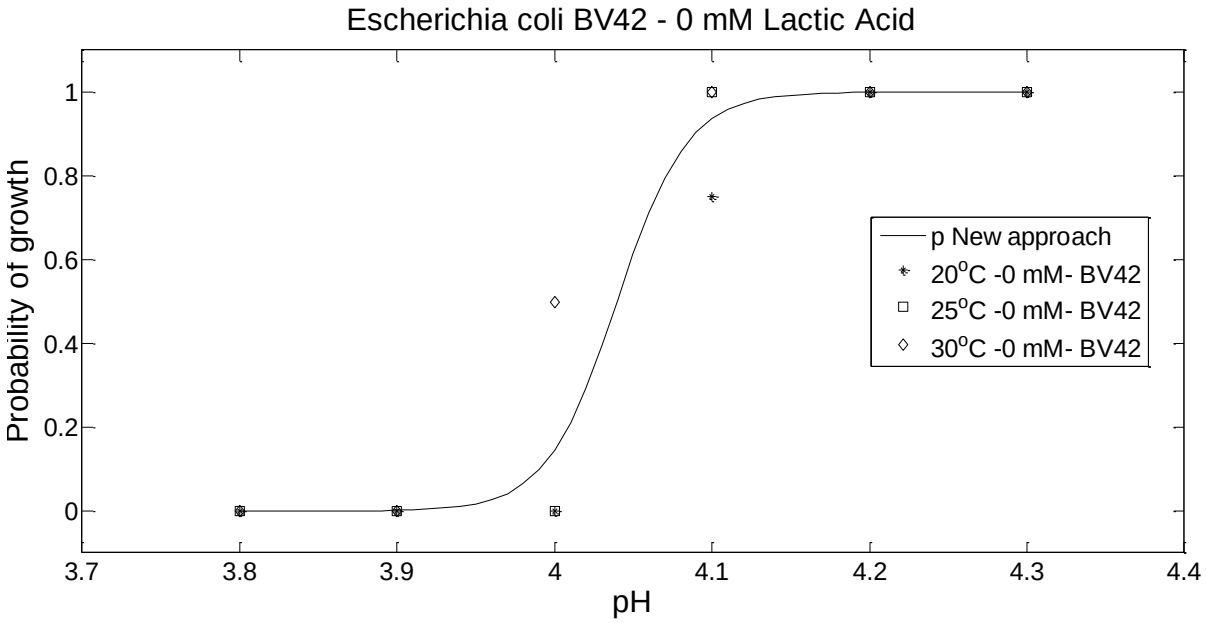
179. *E.coli* BV42 - isolated from horse feces

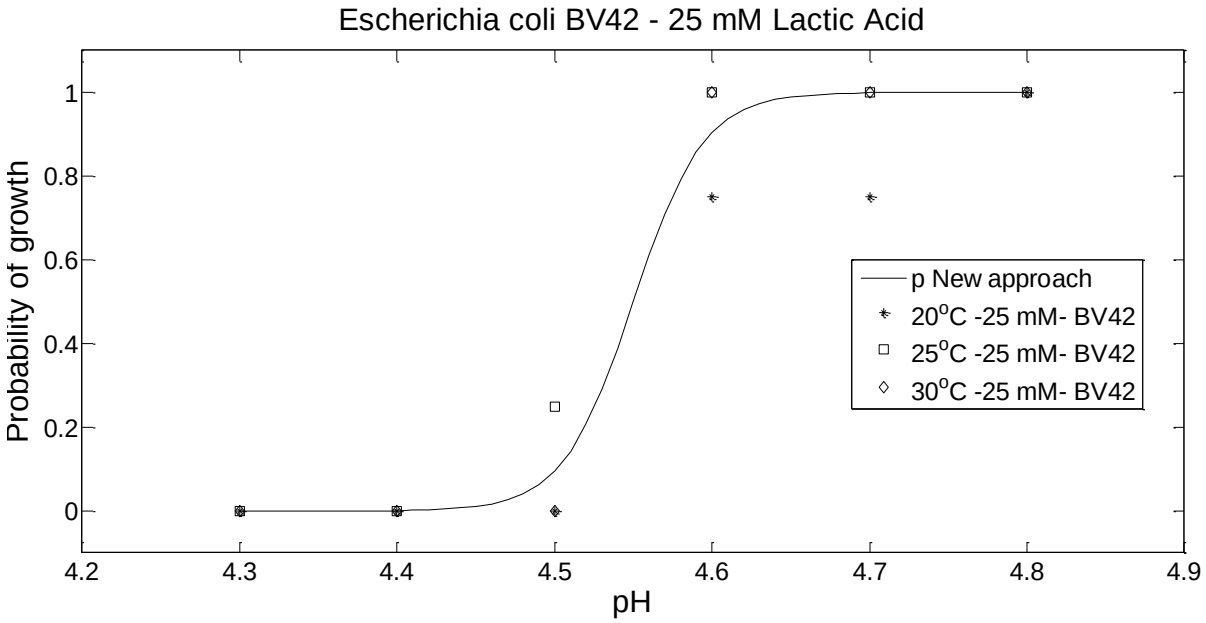
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-180.74	37.79	-4.78	0.00	-269.70	-118.39	0.00	0.00	0.00
pH	44.74	9.37	4.77	0.00	29.30	66.86	2.70E+19	5.29E+12	1.08E+29
LA	-0.91	0.20	-4.61	0.00	-1.39	-0.59	0.40	0.25	0.55

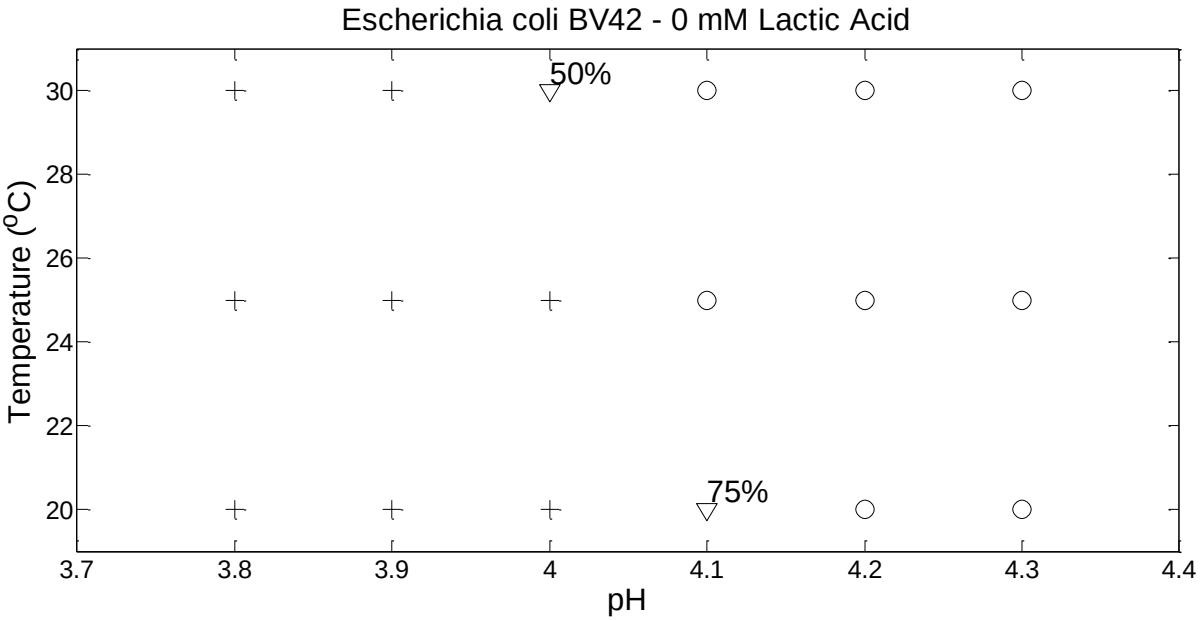
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	199.60	
pH	1	34.92	142	164.67	0.00
LA	1	132.91	141	31.76	0.00

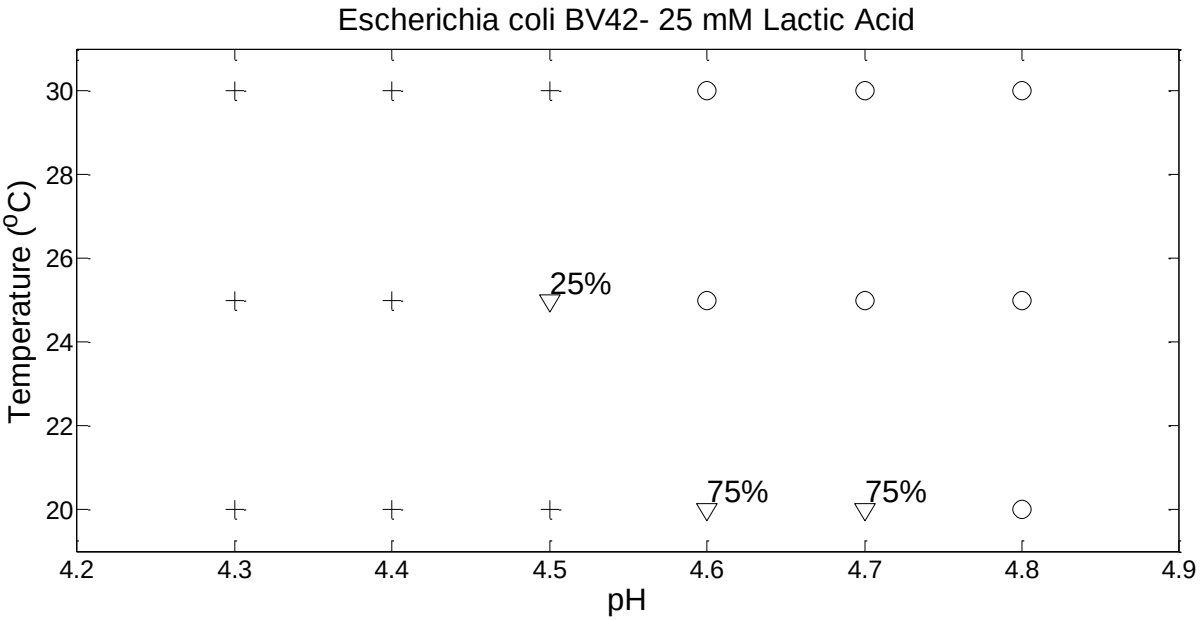
AIC	37.76
Likelihood Ratio	3.58E-37
Log-Likelihood	-15.88




Escherichia coli BV42 - 0 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -0 mM- BV42
25°C -0 mM- BV42
30°C -0 mM- BV42
0
0.2
0.4
0.6
0.8
1
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4


Escherichia coli BV42 - 25 mM Lactic Acid
Probability of growth
pH
p New approach
20°C -25 mM- BV42
25°C -25 mM- BV42
30°C -25 mM- BV42
0
0.2
0.4
0.6
0.8
1
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9


Escherichia coli BV42 - 0 mM Lactic Acid
50%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

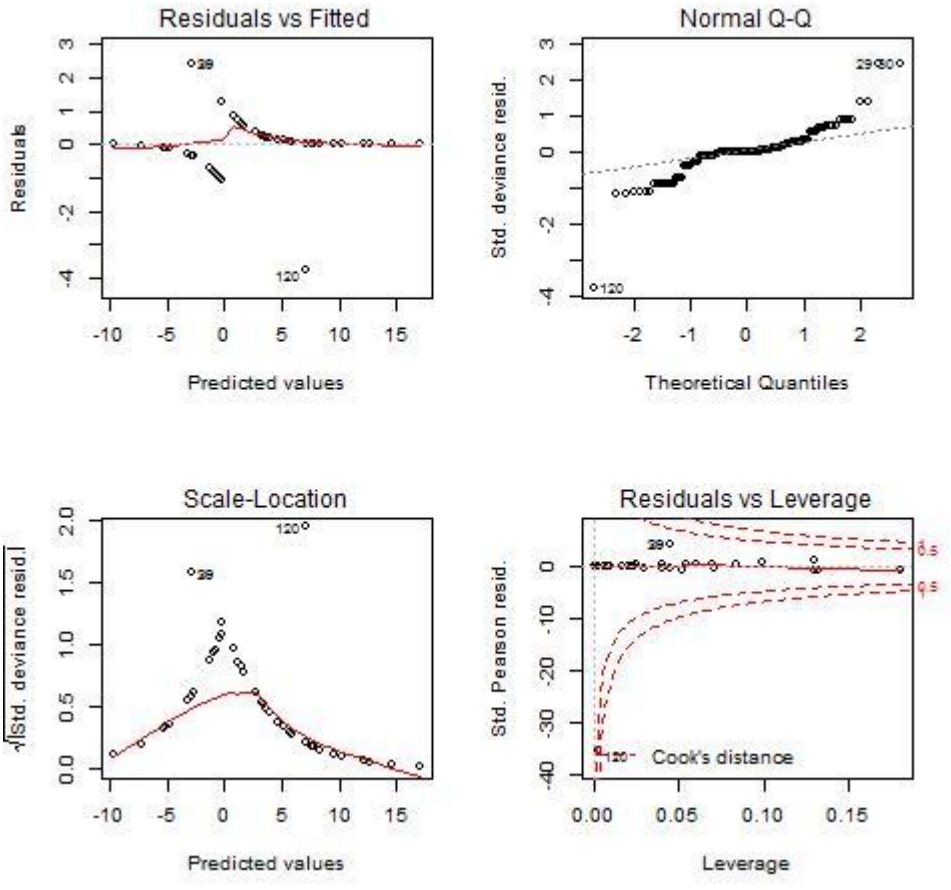

Escherichia coli BV42- 25 mM Lactic Acid
25%
75%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

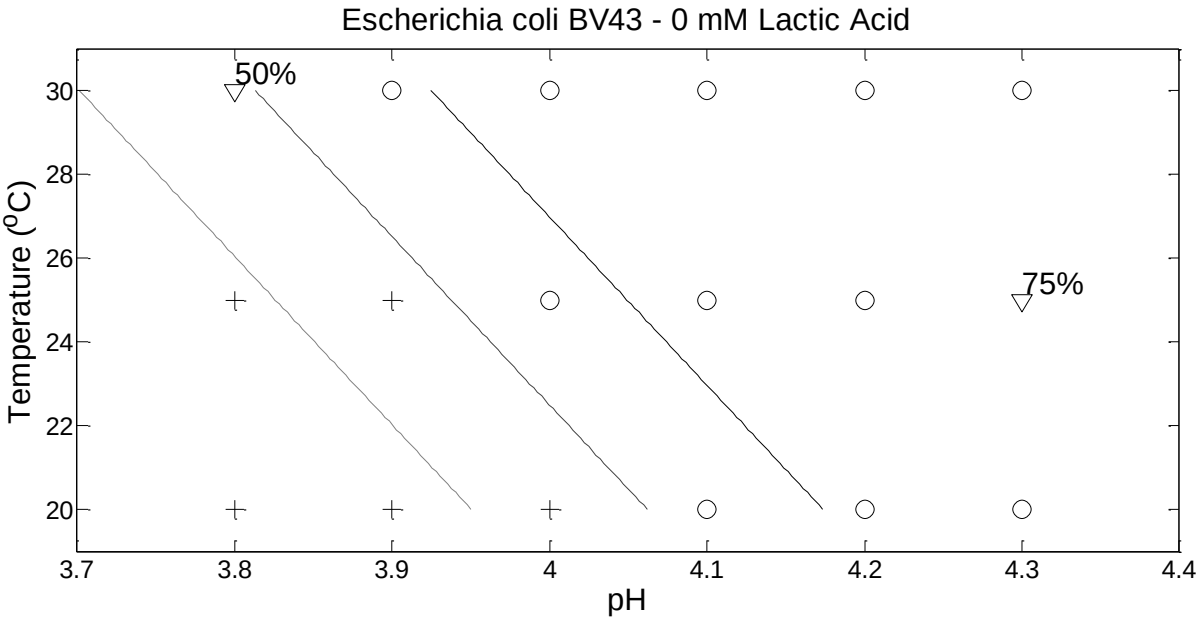
180. *E.coli* BV43 - isolated from horse feces

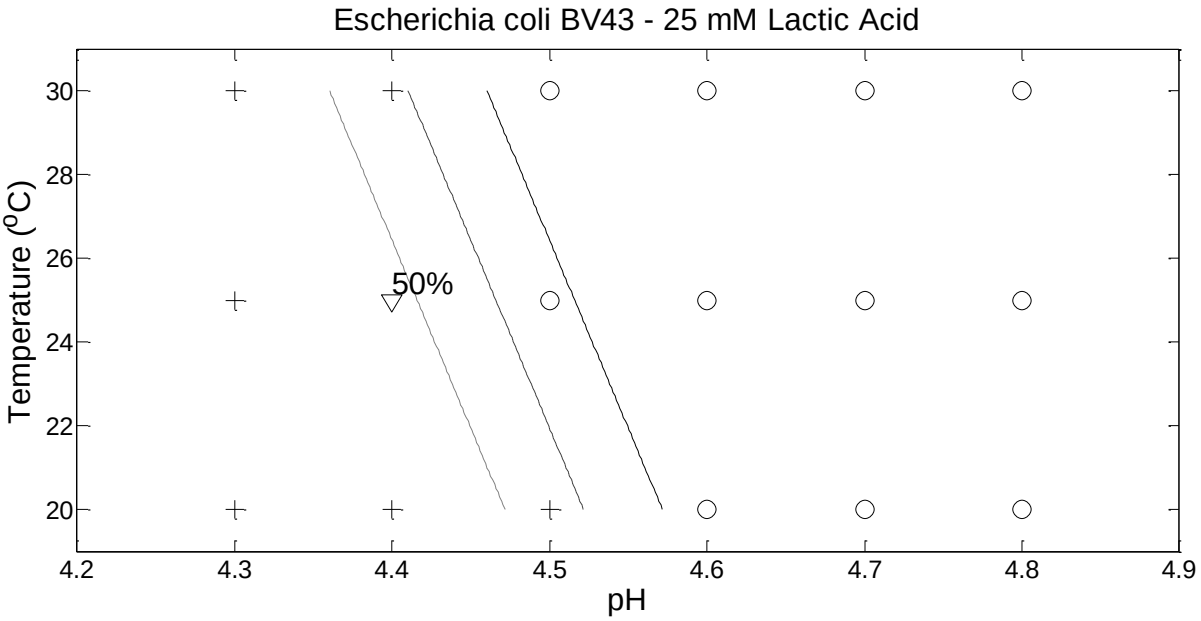
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-89.71	20.66	-4.34	0.00	-137.31	-55.36	0.00	0.00	0.00
pH	19.67	4.68	4.21	0.00	11.88	30.44	3.50E+08	1.45E+05	1.65E+13
LA	-4.75	1.99	-2.39	0.02	-9.44	-1.55	0.01	0.00	0.21
Temp	0.49	0.12	3.93	0.00	0.27	0.77	1.63	1.32	2.16
pH:LA	0.97	0.45	2.18	0.03	0.24	2.02	2.64	1.28	7.50

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	184.67	
pH	1	20.56	142	164.11	0.00
LA	1	76.71	141	87.40	0.00
Temp	1	25.30	140	62.10	0.00
pH:LA	1	7.74	139	54.37	0.01

AIC	64.37
Likelihood Ratio	3.35E-27
Log-Likelihood	-27.18




Escherichia coli BV43 - 0 mM Lactic Acid
50%
75%
Temperature (°C)
pH
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4

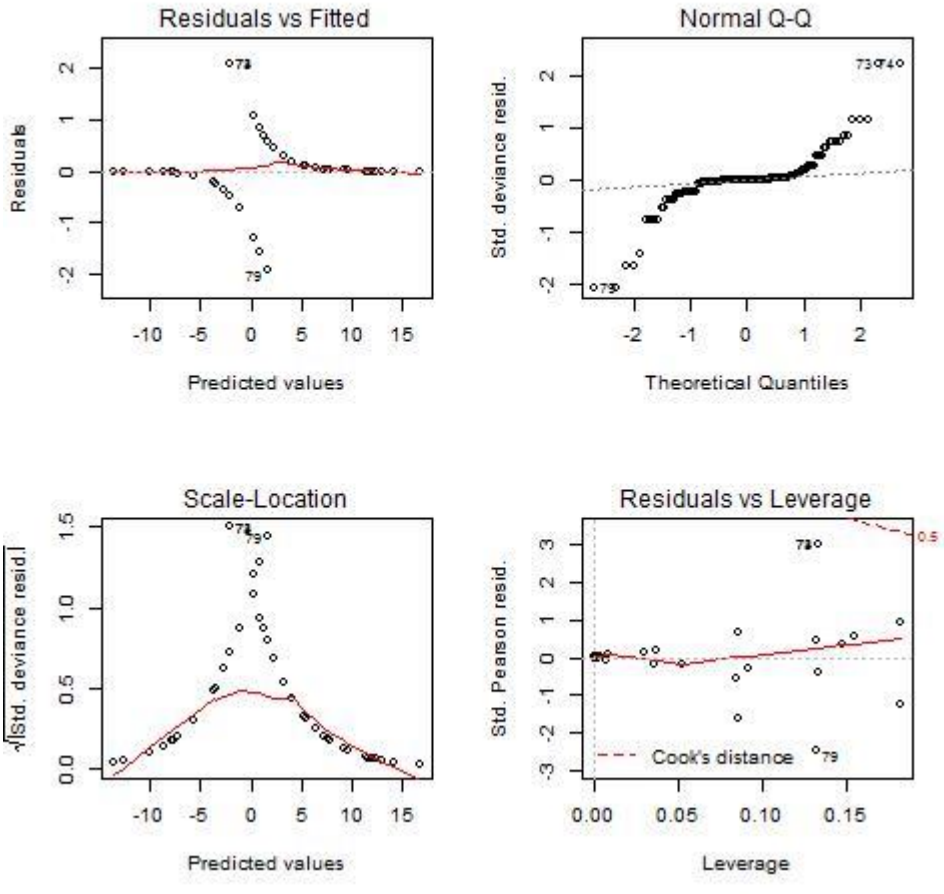

Escherichia coli BV43 - 25 mM Lactic Acid
50%
Temperature (°C)
pH
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9

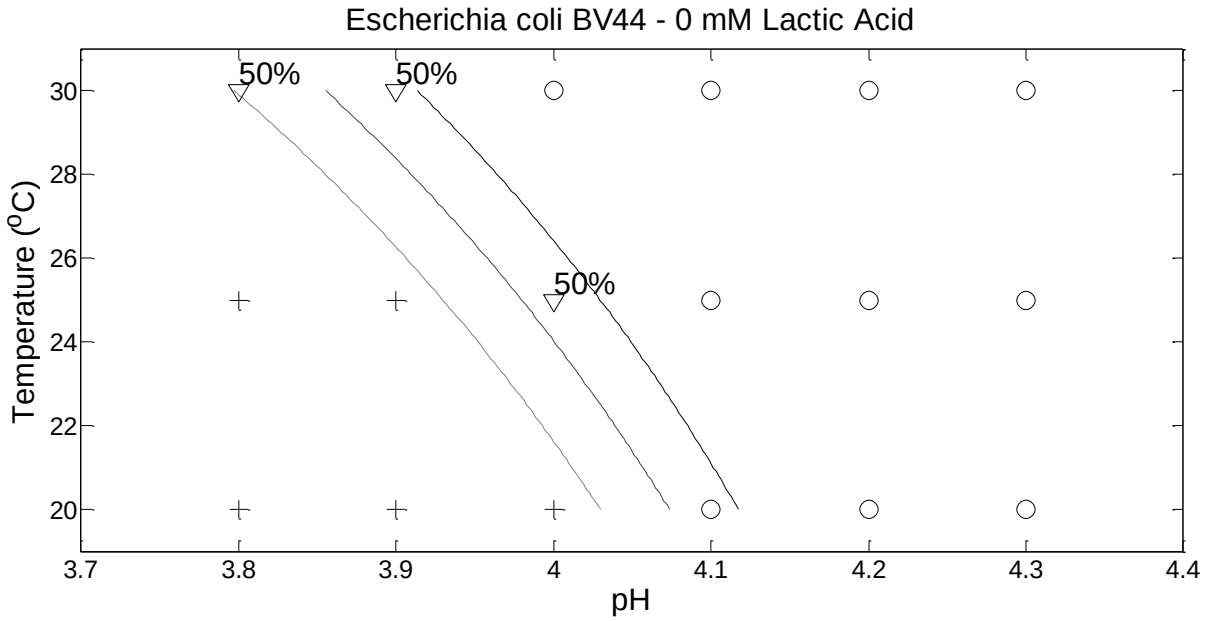
181. *E.coli* BV44 - isolated from horse feces

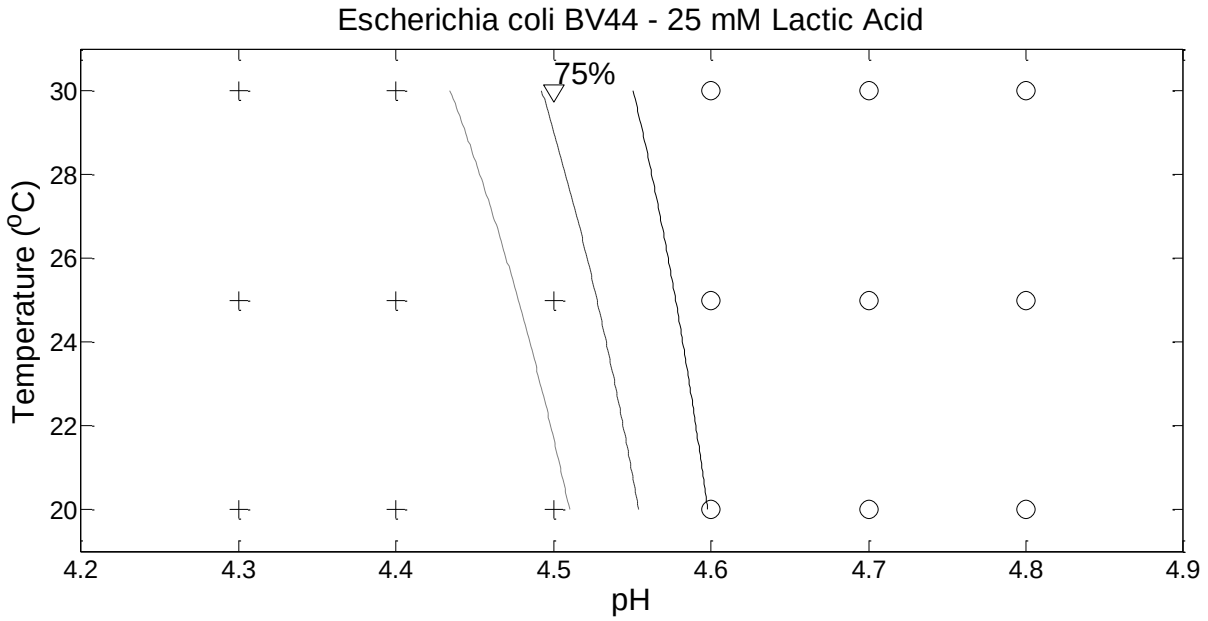
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-321.25	88.91	-3.61	0.00	-551.31	-181.98	0.00	0.00	0.00
pH	74.81	20.69	3.62	0.00	42.38	128.45	3.09E+32	2.54E+18	6.09E+55
LA	-0.96	0.22	-4.32	0.00	-1.51	-0.61	0.38	0.22	0.54
Temp	5.85	2.23	2.62	0.01	2.18	11.49	347.73	8.82	9.82E+04
pH:Temp	-1.23	0.50	-2.46	0.01	-2.50	-0.40	0.29	0.08	0.67

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	194.91	
pH	1	19.99	142	174.91	0.00
LA	1	108.67	141	66.24	0.00
Temp	1	21.44	140	44.79	0.00
pH:Temp	1	9.49	139	35.30	0.00

AIC	45.30
Likelihood Ratio	1.78E-33
Log-Likelihood	-17.65




Escherichia coli BV44 - 0 mM Lactic Acid
50%
50%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

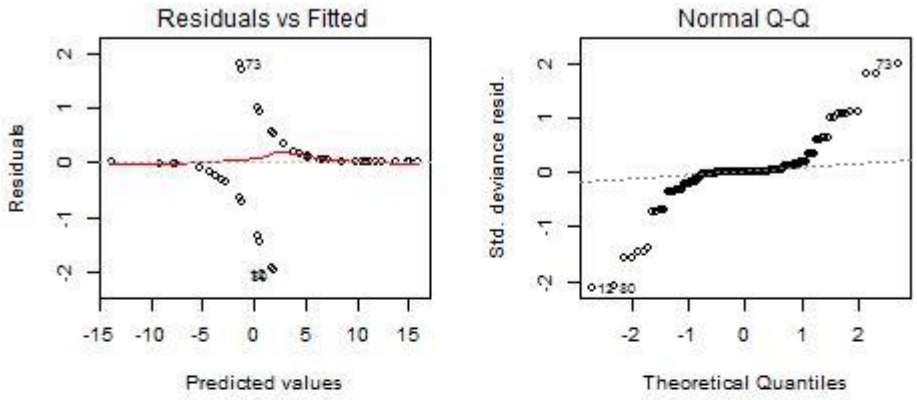

Escherichia coli BV44 - 25 mM Lactic Acid
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

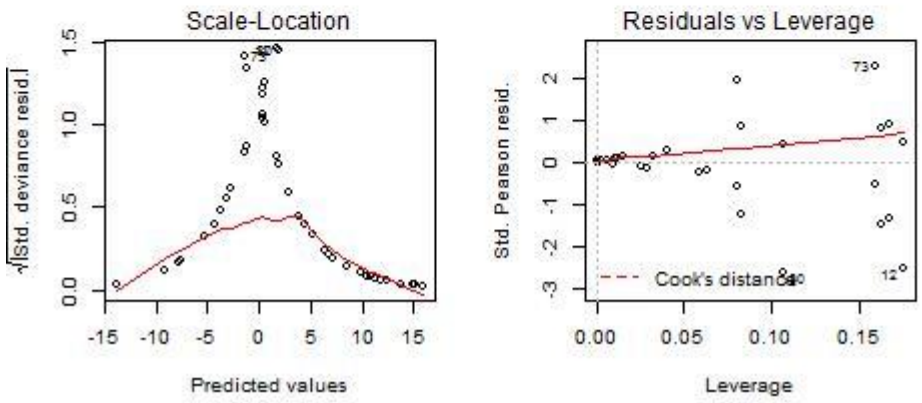
182. *E.coli* BV45 - isolated from horse feces

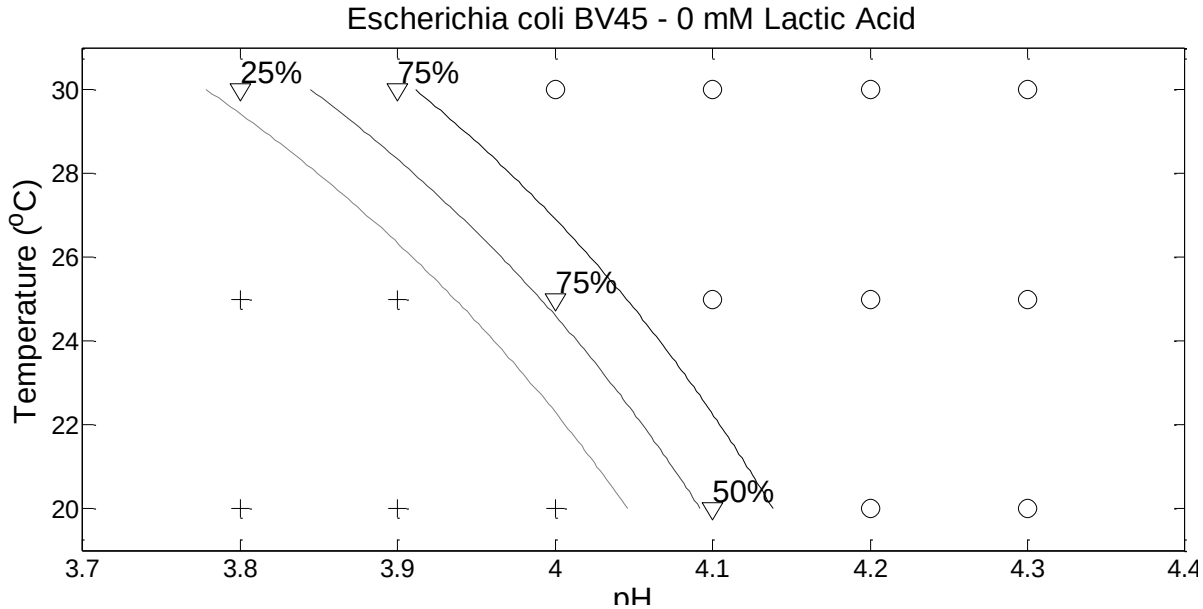
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-330.10	90.79	-3.64	0.00	-551.82	-183.47	0.00	0.00	0.00
pH	76.67	21.18	3.62	0.00	42.42	128.44	1.99E+33	2.65E+18	6.05E+55
LA	-0.71	0.17	-4.19	0.00	-1.13	-0.44	0.49	0.32	0.64
Temp	6.76	2.41	2.80	0.01	2.65	12.50	864.46	14.11	2.67E+05
pH:Temp	-1.45	0.55	-2.64	0.01	-2.76	-0.51	0.23	0.06	0.60

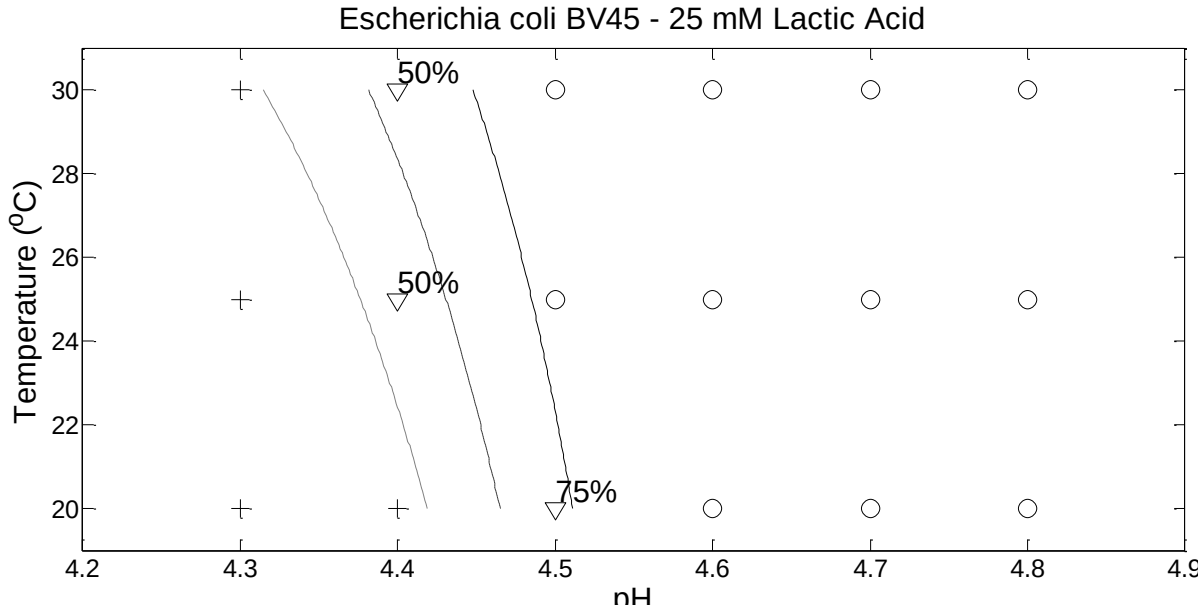
	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	183.32	
pH	1	37.75	142	145.57	0.00
LA	1	69.53	141	76.05	0.00
Temp	1	26.10	140	49.94	0.00
pH:Temp	1	10.16	139	39.78	0.00

AIC	49.78
Likelihood Ratio	4.94E-30
Log-Likelihood	-19.89






Escherichia coli BV45 - 0 mM Lactic Acid
25%
75%
75%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

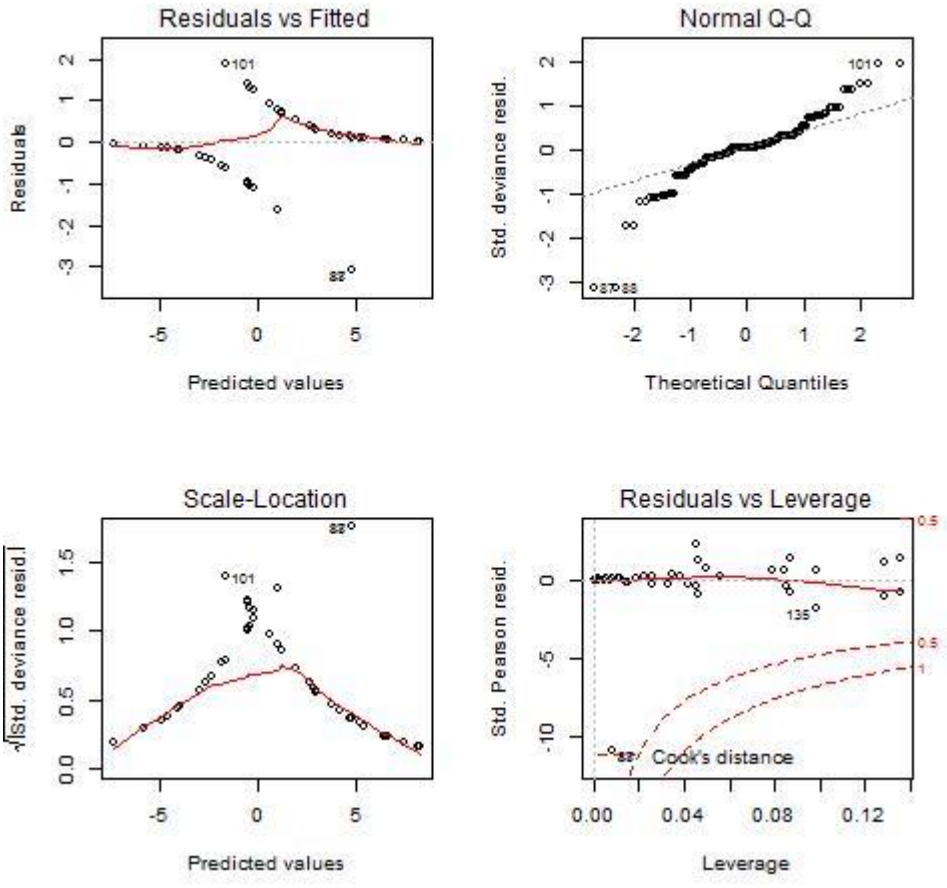

Escherichia coli BV45 - 25 mM Lactic Acid
50%
50%
75%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

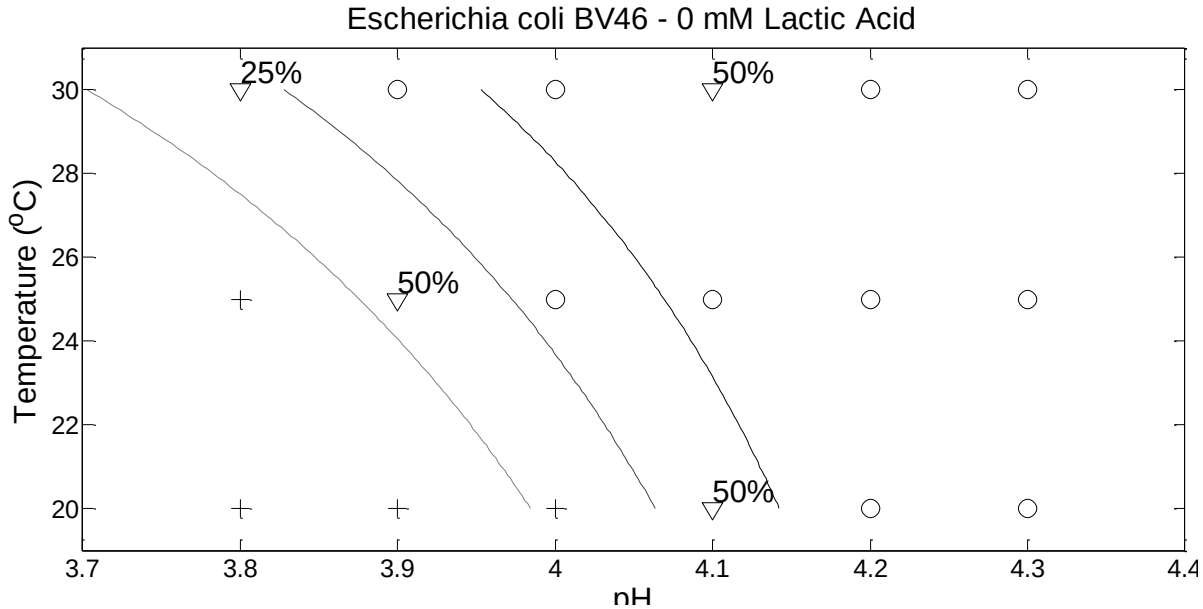
183. *E.coli* BV46 - isolated from horse feces

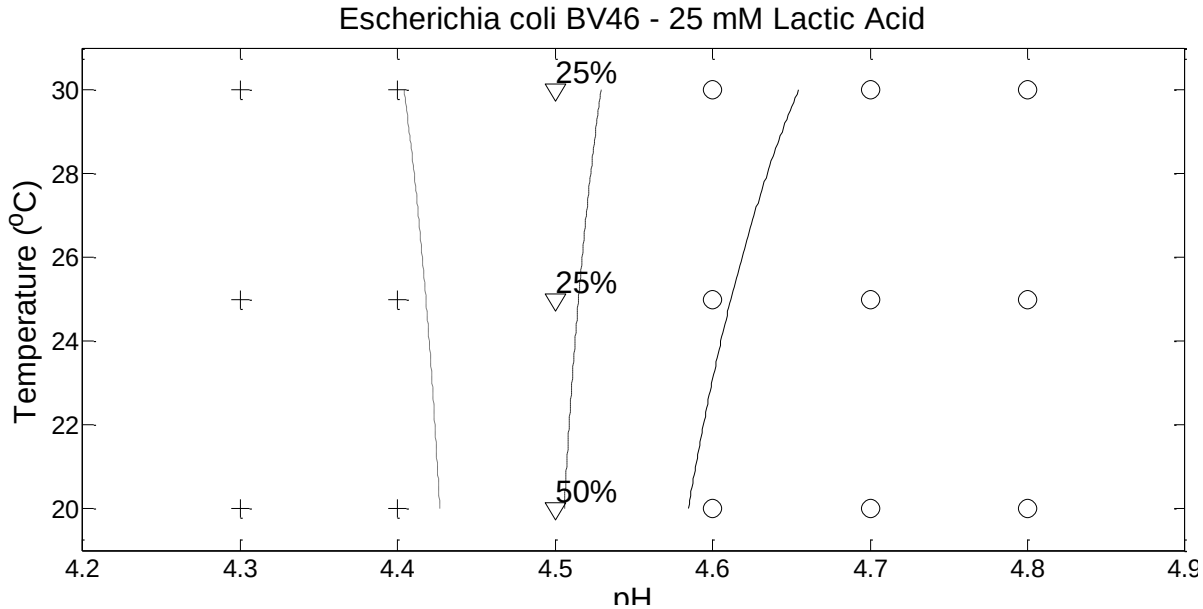
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-204.88	46.09	-4.45	0.00	-309.36	-125.68	0.00	0.00	0.00
pH	48.39	10.86	4.46	0.00	29.73	72.99	1.03E+21	8.18E+12	4.99E+31
LA	-0.49	0.09	-5.39	0.00	-0.70	-0.34	0.61	0.50	0.71
Temp	4.59	1.38	3.34	0.00	2.13	7.61	98.66	8.44	2010.32
pH:Temp	-1.03	0.32	-3.23	0.00	-1.72	-0.46	0.36	0.18	0.63

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	193.33	
pH	1	16.62	142	176.71	0.00
LA	1	87.33	141	89.38	0.00
Temp	1	7.23	140	82.14	0.01
pH:Temp	1	14.03	139	68.11	0.00

AIC	78.11
Likelihood Ratio	4.1E-26
Log-Likelihood	-34.06




Escherichia coli BV46 - 0 mM Lactic Acid
25%
50%
50%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

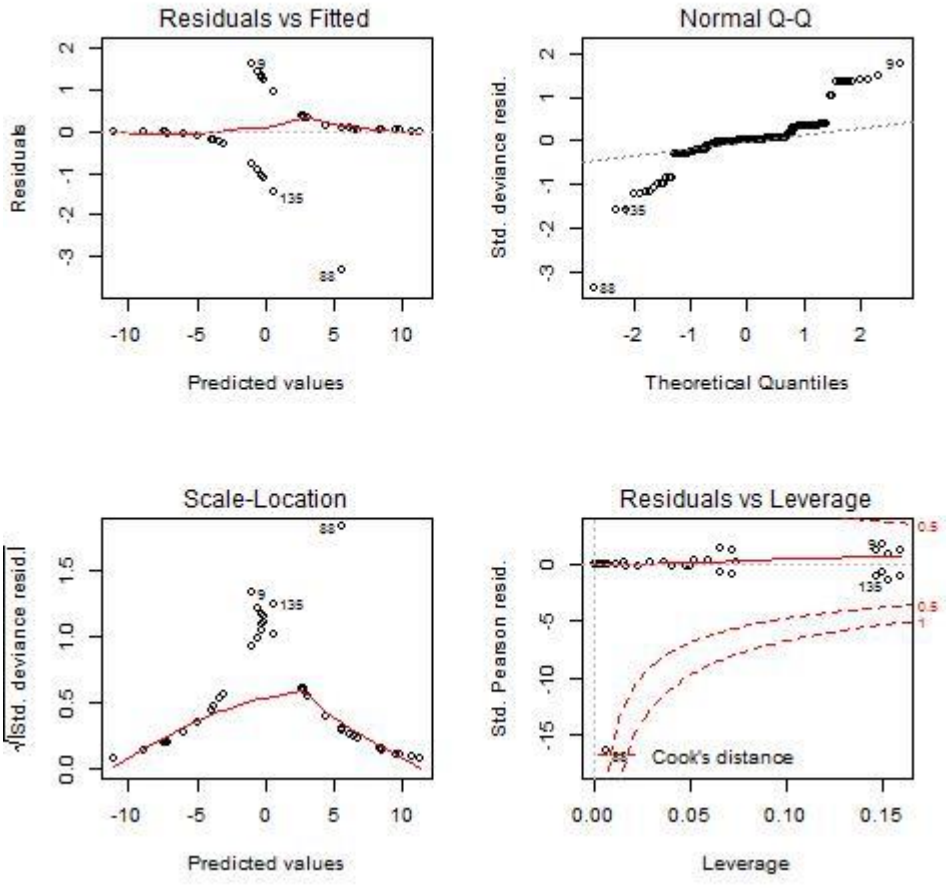

Escherichia coli BV46 - 25 mM Lactic Acid
25%
25%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

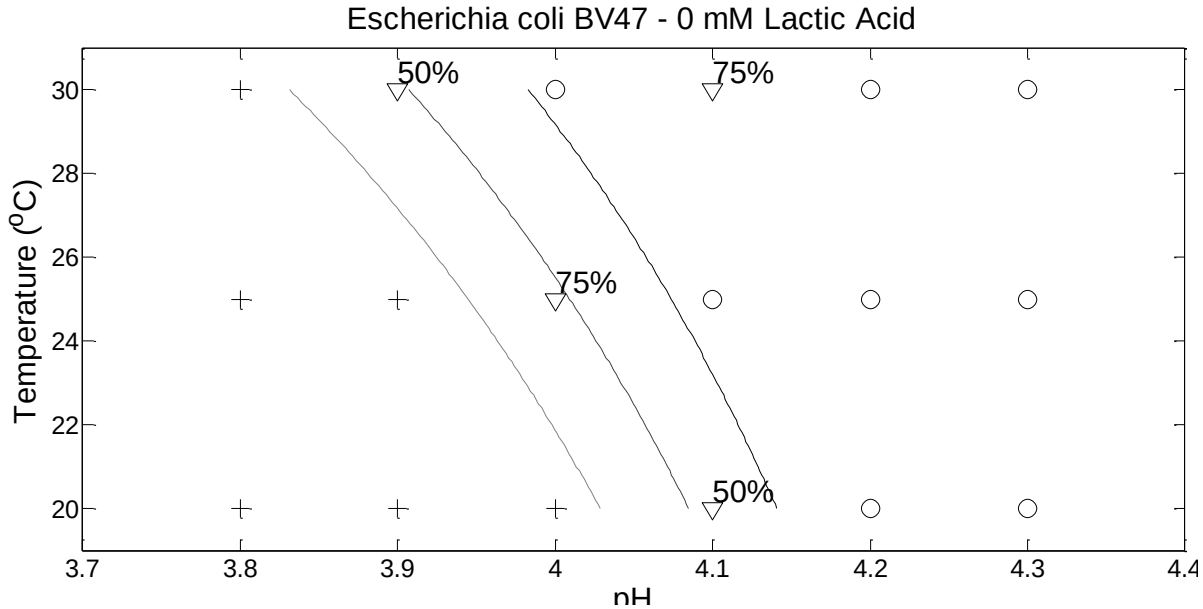
184. *E.coli* BV47 - isolated from horse feces

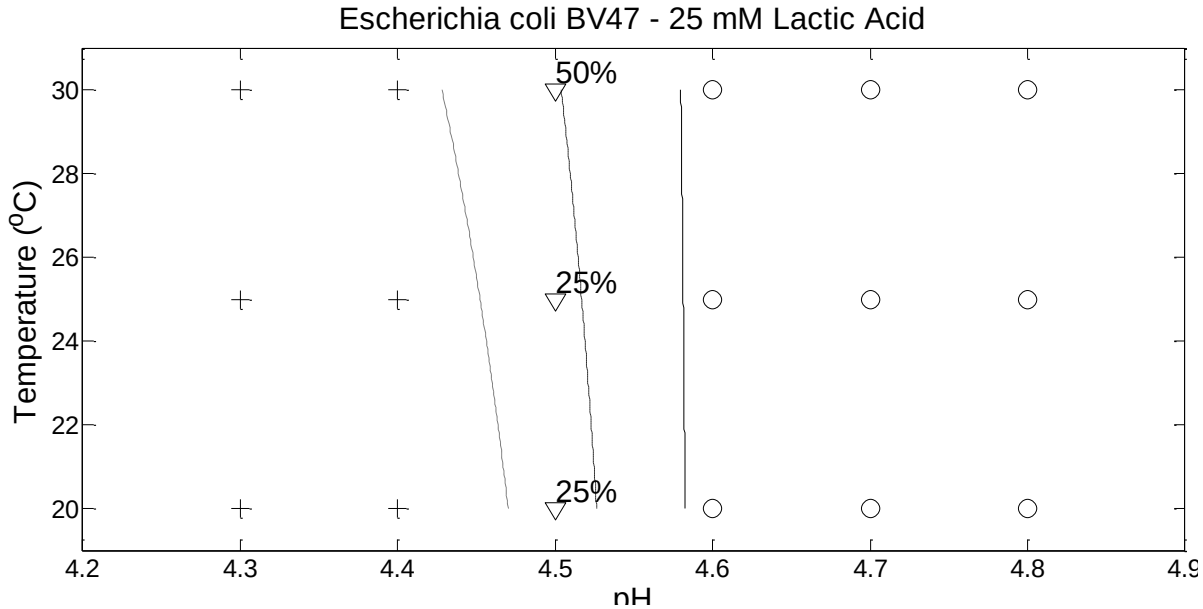
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-253.45	69.24	-3.66	0.00	-424.08	-141.53	0.00	0.00	0.00
pH	59.53	16.25	3.66	0.00	33.28	99.60	7.11E+25	2.85E+14	1.80E+43
LA	-0.69	0.15	-4.58	0.00	-1.07	-0.45	0.50	0.34	0.64
Temp	4.68	1.86	2.51	0.01	1.44	8.96	107.40	4.24	7792.13
pH:Temp	-1.02	0.43	-2.39	0.02	-1.99	-0.27	0.36	0.14	0.76

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	196.84	
pH	1	28.62	142	168.22	0.00
LA	1	102.58	141	65.64	0.00
Temp	1	10.38	140	55.26	0.00
pH:Temp	1	7.65	139	47.61	0.01

AIC	57.61
Likelihood Ratio	2.98E-31
Log-Likelihood	-23.81




Escherichia coli BV47 - 0 mM Lactic Acid
50%
75%
75%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

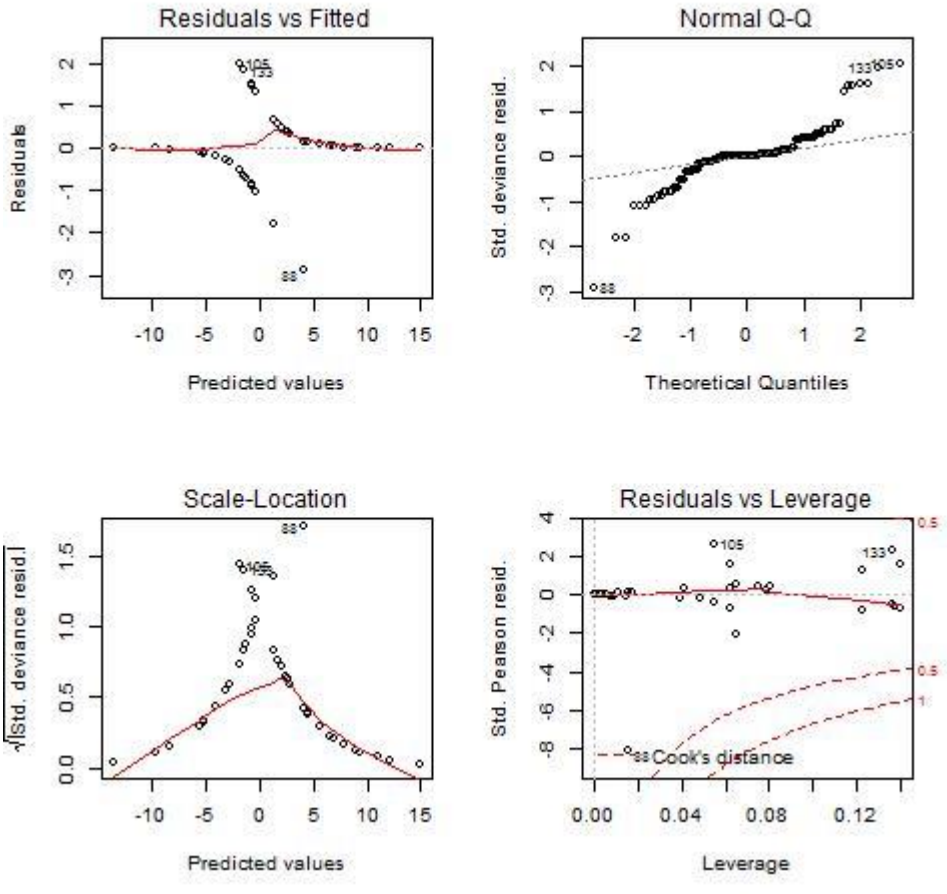

Escherichia coli BV47 - 25 mM Lactic Acid
50%
25%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

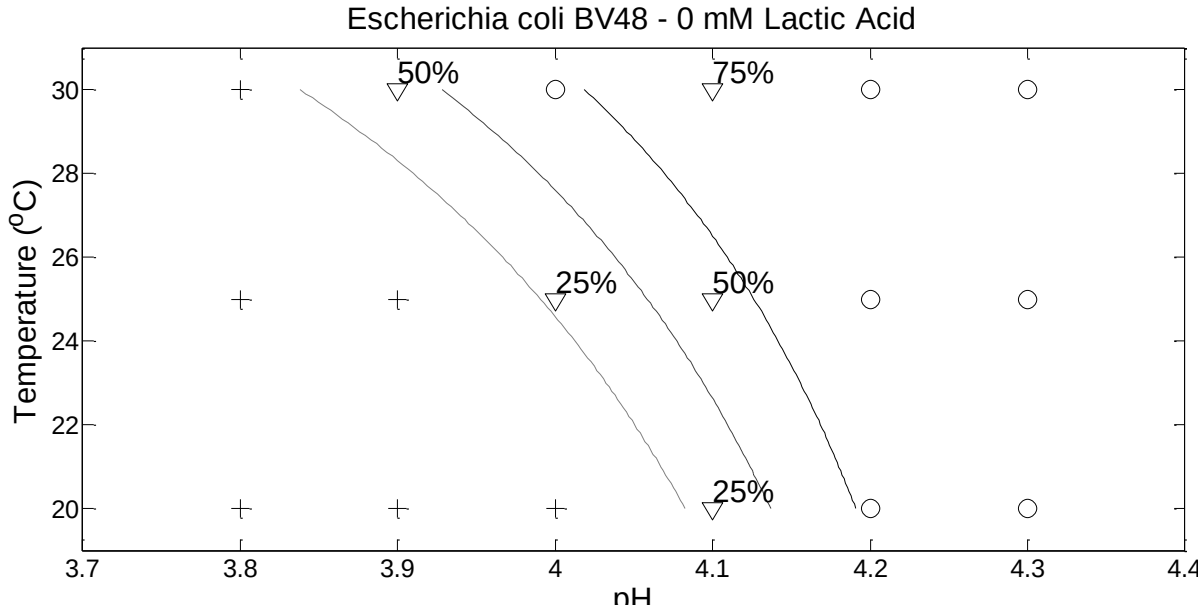
185. *E.coli* BV48 - isolated from rabbit feces

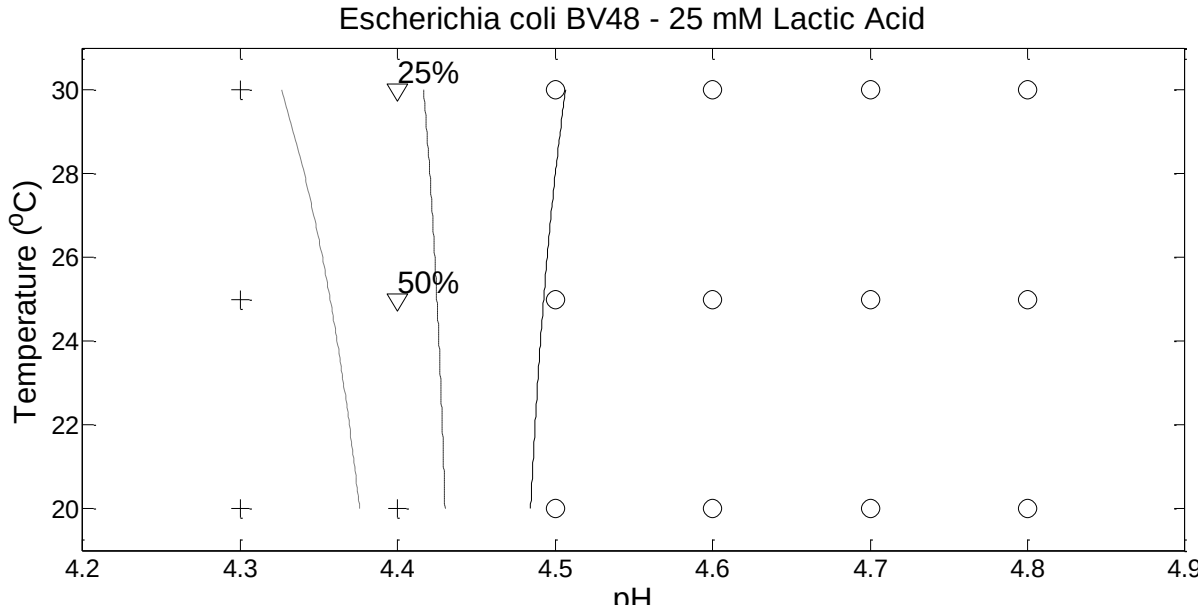
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-311.19	81.26	-3.83	0.00	-501.31	-175.41	0.00	0.00	0.00
pH	72.77	19.08	3.81	0.00	40.90	117.39	4.03E+31	5.78E+17	9.61E+50
LA	-0.47	0.10	-4.80	0.00	-0.70	-0.31	0.62	0.49	0.73
Temp	7.19	2.44	2.95	0.00	2.98	12.76	1324.60	19.72	3.50E+05
pH:Temp	-1.62	0.57	-2.86	0.00	-2.91	-0.64	0.20	0.05	0.53

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	192.46	
pH	1	56.77	142	135.69	0.00
LA	1	62.32	141	73.37	0.00
Temp	1	11.72	140	61.65	0.00
pH:Temp	1	11.95	139	49.70	0.00

AIC	59.70
Likelihood Ratio	7.26E-30
Log-Likelihood	-24.85




Escherichia coli BV48 - 0 mM Lactic Acid
50%
75%
25%
50%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

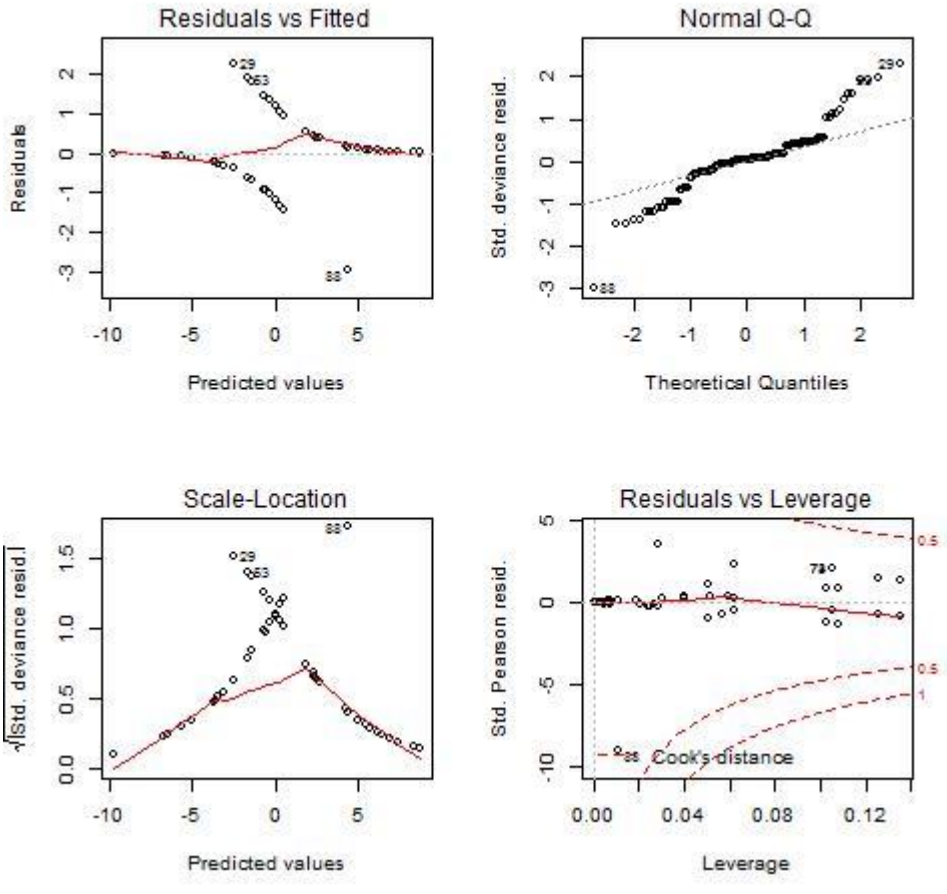

Escherichia coli BV48 - 25 mM Lactic Acid
25%
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
pH

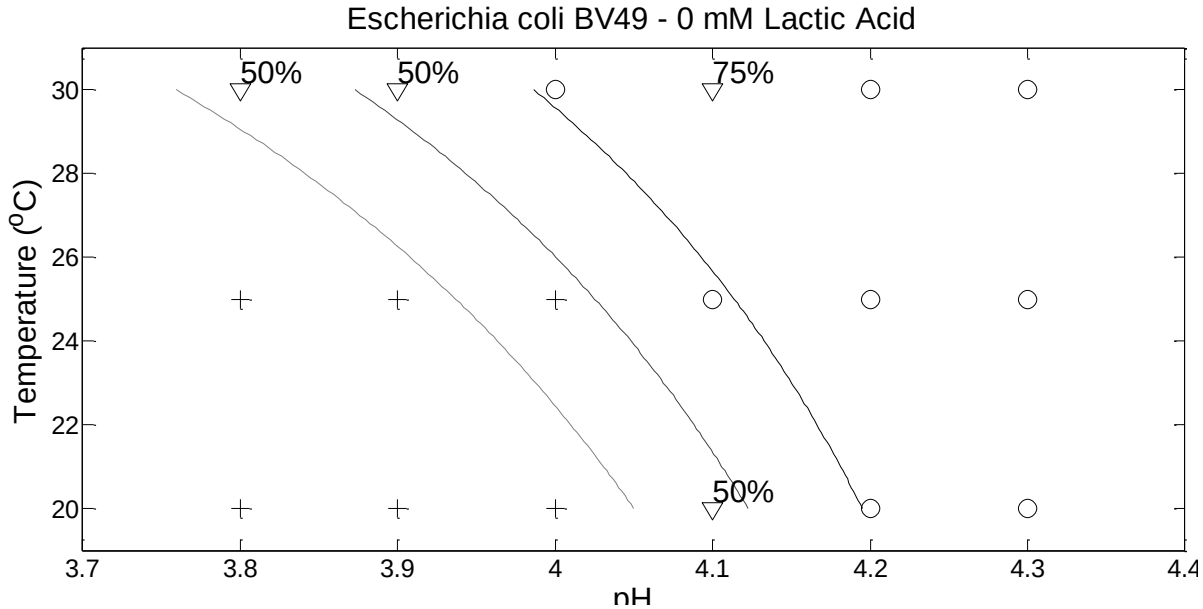
186. *E.coli* BV49 - isolated from rabbit feces

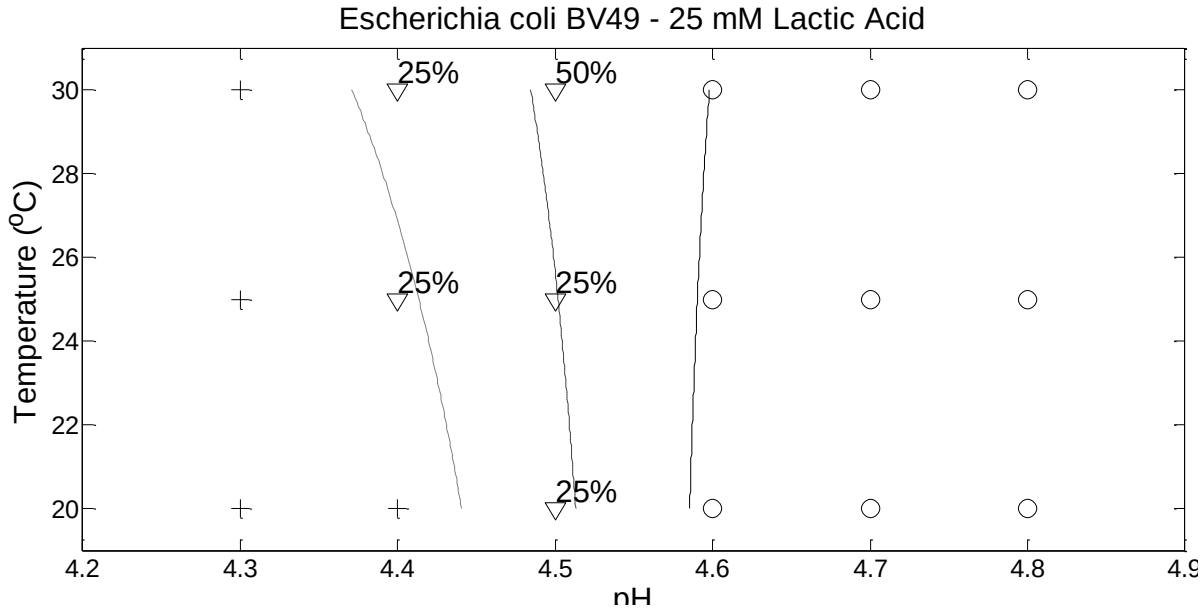
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-225.09	53.31	-4.22	0.00	-345.56	-133.81	0.00	0.00	0.00
pH	52.26	12.42	4.21	0.00	30.98	80.33	4.95E+22	2.85E+13	7.68E+34
LA	-0.47	0.09	-5.19	0.00	-0.69	-0.32	0.62	0.50	0.73
Temp	5.00	1.59	3.15	0.00	2.17	8.48	149.11	8.73	4813.57
pH:Temp	-1.10	0.37	-3.00	0.00	-1.89	-0.44	0.33	0.15	0.64

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	196.25	
pH	1	29.43	142	166.82	0.00
LA	1	76.73	141	90.10	0.00
Temp	1	14.18	140	75.92	0.00
pH:Temp	1	11.92	139	64.00	0.00

AIC	74.00
Likelihood Ratio	1.28E-27
Log-Likelihood	-32.00




Escherichia coli BV49 - 0 mM Lactic Acid
50%
50%
75%
50%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

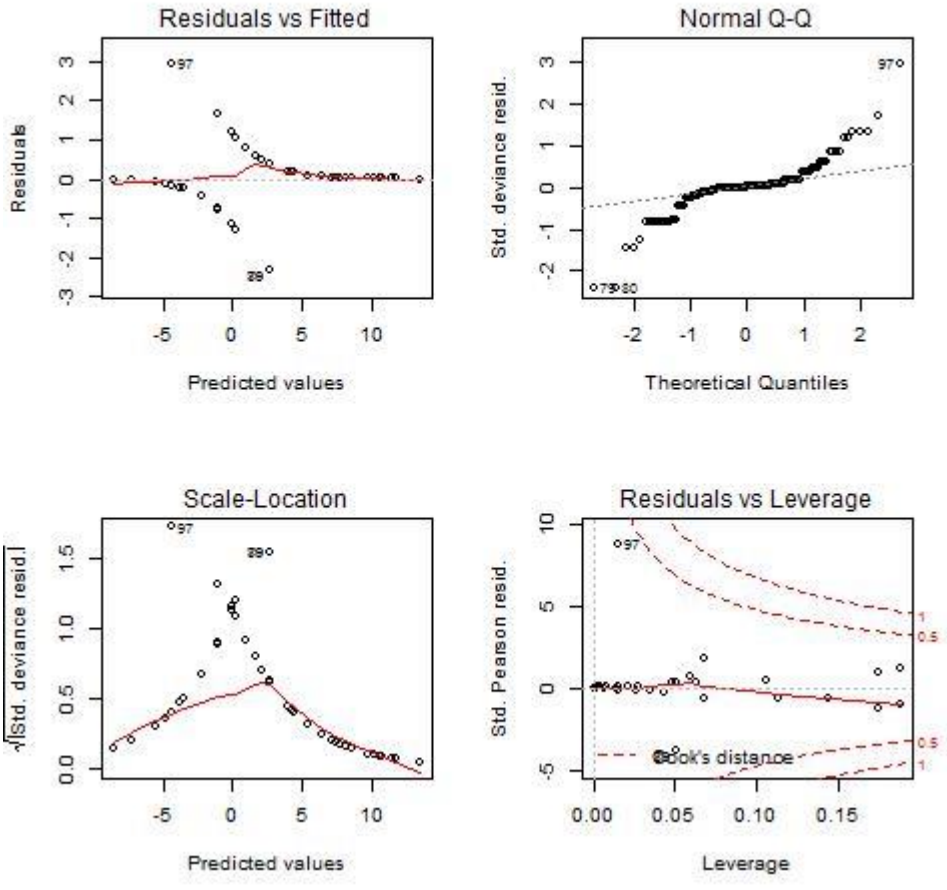

Escherichia coli BV49 - 25 mM Lactic Acid
25%
50%
25%
25%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

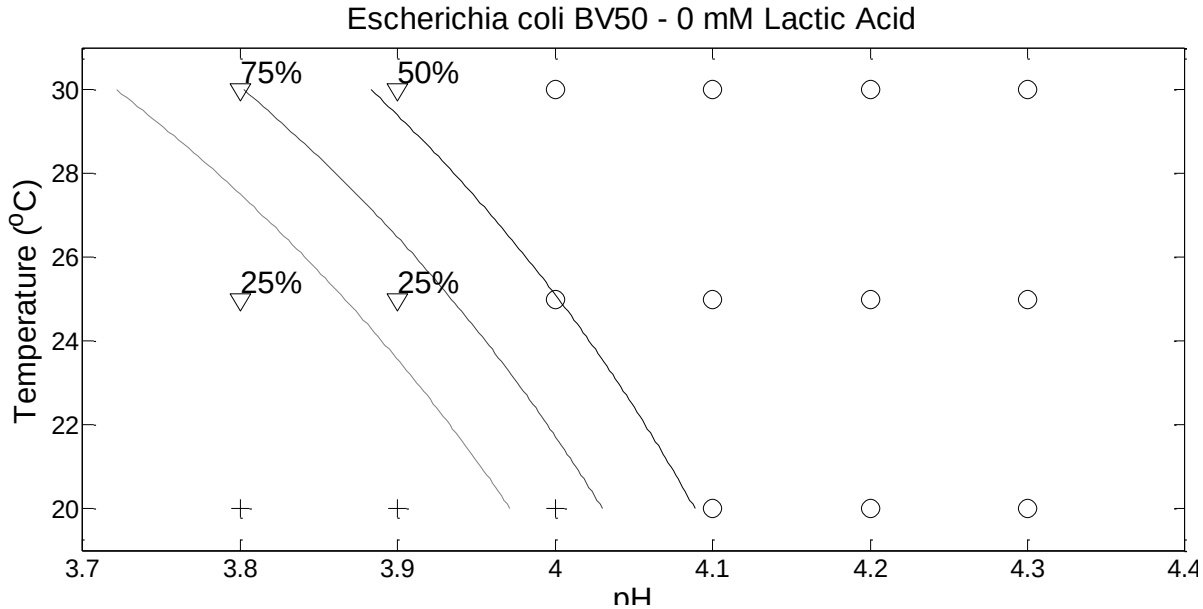
187. *E.coli* BV50 - isolated from goose feces

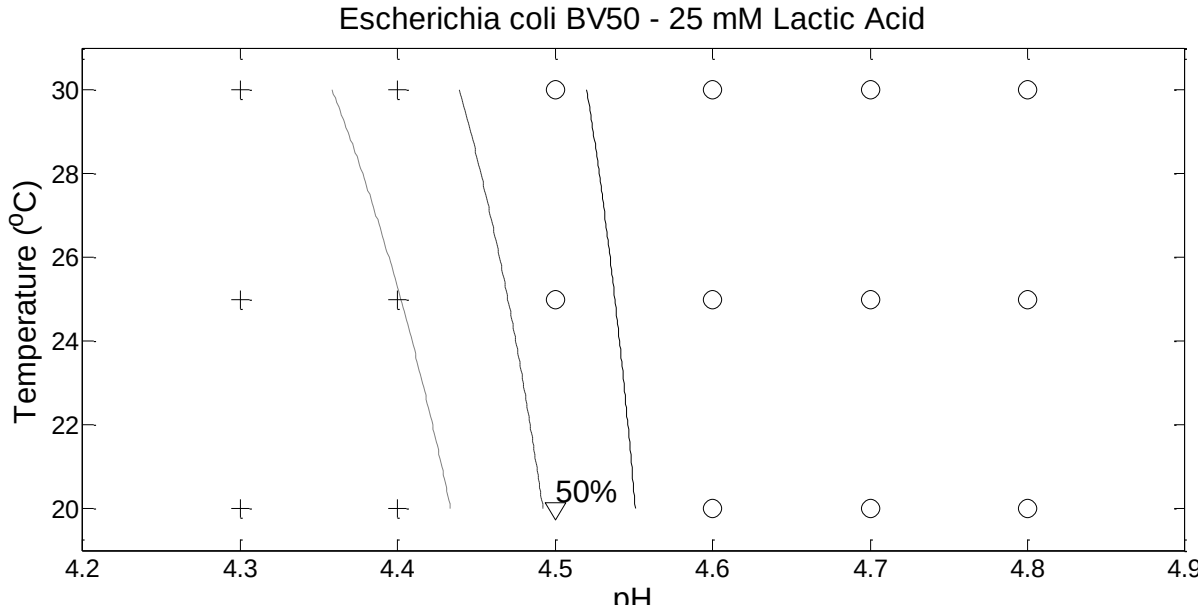
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-246.20	60.18	-4.09	0.00	-383.64	-144.40	0.00	0.00	0.00
pH	58.02	14.22	4.08	0.00	33.96	90.48	1.57E+25	5.62E+14	1.97E+39
LA	-0.69	0.15	-4.55	0.00	-1.06	-0.45	0.50	0.35	0.64
Temp	4.76	1.62	2.93	0.00	1.84	8.30	117.00	6.31	4.02E+03
pH:Temp	-1.03	0.37	-2.75	0.01	-1.84	-0.35	0.36	0.16	0.71

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	181.90	
pH	1	18.78	142	163.12	0.00
LA	1	88.28	141	74.85	0.00
Temp	1	17.85	140	57.00	0.00
pH:Temp	1	9.41	139	47.59	0.00

AIC	57.59
Likelihood Ratio	4.67E-28
Log-Likelihood	-23.80




Escherichia coli BV50 - 0 mM Lactic Acid
75%
50%
25%
25%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH

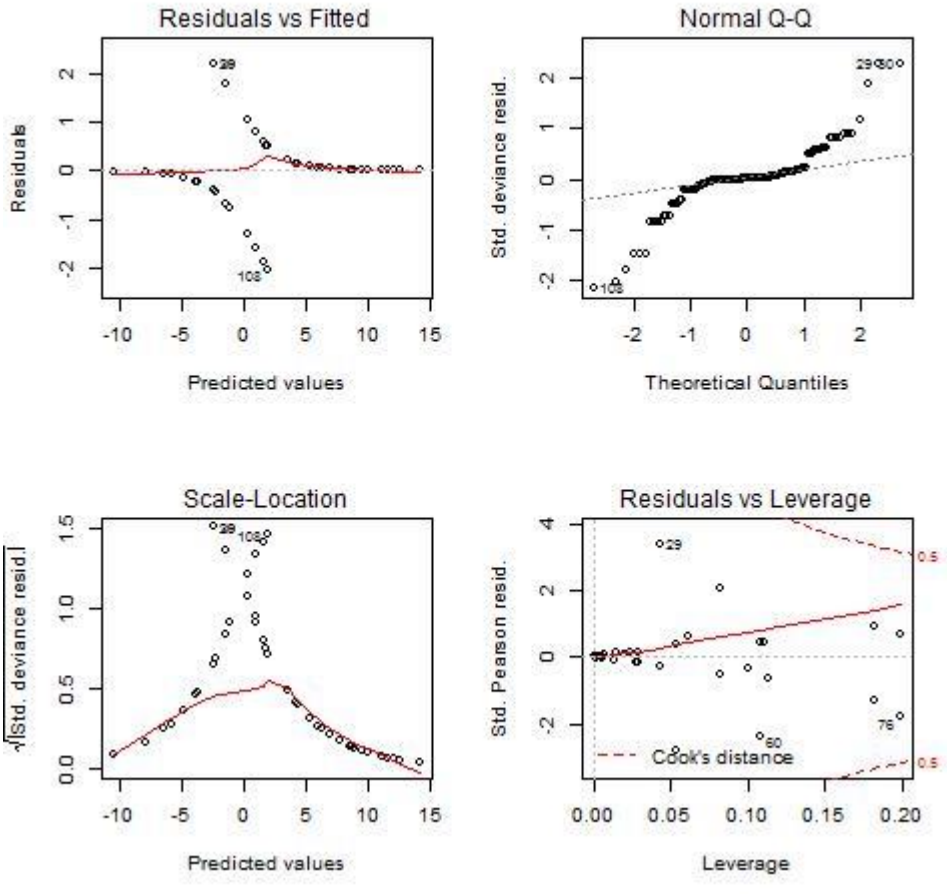

Escherichia coli BV50 - 25 mM Lactic Acid
50%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH

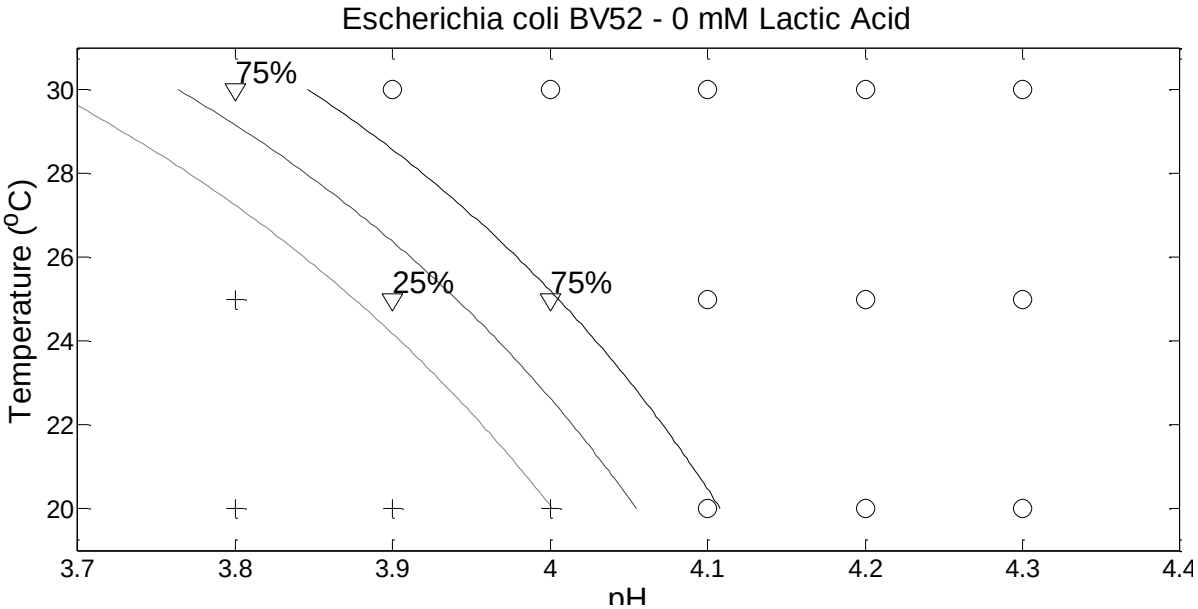
188. *E.coli* BV52 - isolated from chopped biefsteak

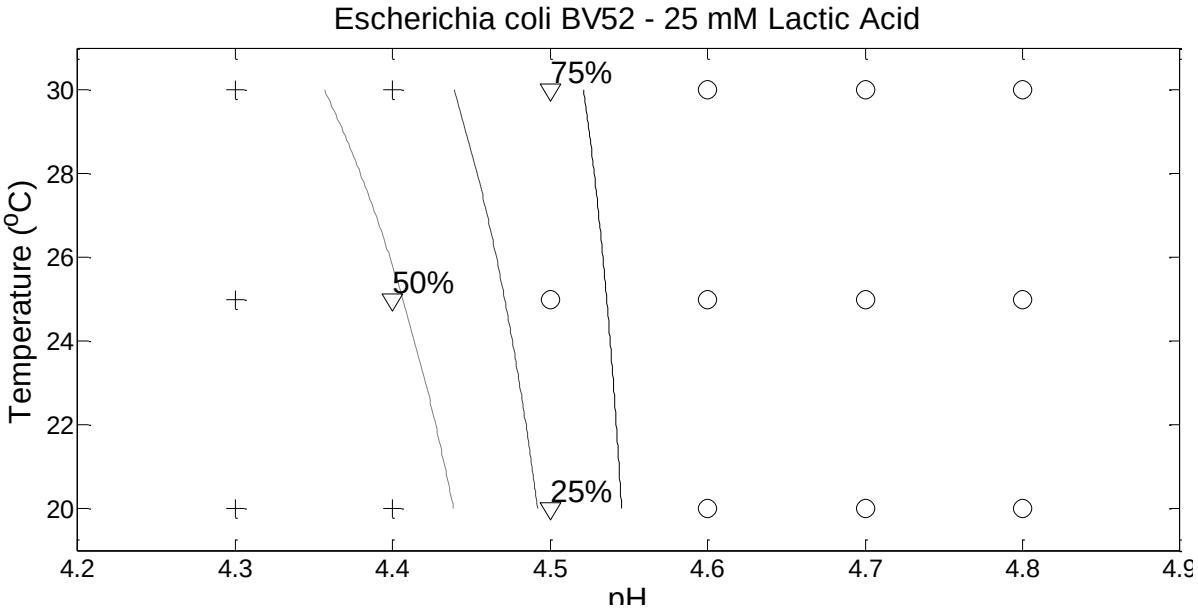
	Estimate	Std. Error	z value	Pr(>|z|)	2.50%	97.50%	ODD	2.50%	97.50%
(Intercept)	-300.18	71.18	-4.22	0.00	-466.52	-181.57	0.00	0.00	0.00
pH	70.21	16.67	4.21	0.00	42.38	109.04	3.09E+30	2.53E+18	2.28E+47
LA	-0.72	0.16	-4.50	0.00	-1.10	-0.46	0.49	0.33	0.63
Temp	6.66	1.95	3.41	0.00	3.28	11.10	778.15	26.62	6.59E+04
pH:Temp	-1.45	0.44	-3.27	0.00	-2.45	-0.68	0.23	0.09	0.51

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			143	181.90	
pH	1	17.69	142	164.20	0.00
LA	1	81.65	141	82.55	0.00
Temp	1	22.98	140	59.57	0.00
pH:Temp	1	16.12	139	43.45	0.00

AIC	53.45
Likelihood Ratio	6.07E-29
Log-Likelihood	-21.73




Escherichia coli BV52 - 0 mM Lactic Acid
75%
25%
75%
Temperature (°C)
30
28
26
24
22
20
3.7
3.8
3.9
4
4.1
4.2
4.3
4.4
pH


Escherichia coli BV52 - 25 mM Lactic Acid
75%
50%
25%
Temperature (°C)
30
28
26
24
22
20
4.2
4.3
4.4
4.5
4.6
4.7
4.8
4.9
pH